

## THE HIGH COST OF THE 55 MPH SPEED LIMIT

### INTRODUCTION

Part of America's summer ritual for the past dozen years has been the crescendo of complaints about the the 55 mile per hour speed limit, technically called the National Maximum Speed Law (NMSL). This summer is no exception. Vacationing Americans taking to the road feel that they are crawling at only a bit more than a snail's pace. Interstate truckers feel that the speed limit drives up the cost of transporting goods. Drivers in the plains states who travel vast distances on almost empty roads feel that it causes needless and costly delays. And state officials feel that the NMSL is an unwarranted and ill-advised intrusion by the federal government into an area traditionally reserved to the states. Yet the 55 mph limit remains federal law--despite the fact that its original purpose no longer needs serving.

The speed limit was enacted by Congress in March 1974 as part of a package of measures dealing with the oil crisis. Cruising at 55 mph, it was thought, was the most efficient use of an auto's engine and thus would save fuel. As it turned out, however, the energy actually saved was minimal--at best 1 percent of gasoline consumption, or about the same amount a driver could realize by increasing the pressure of his radial tires from 24 to 26 pounds.

In the face of this data, speed limit advocates shifted ground. They now touted 55 mph as a way to save lives. Indeed, during the first year of 55 mph on the law books, traffic fatalities plummeted an astounding 15.3 percent.

While many states have objected to the NMSL, they did little to oppose it. For one thing, failure to comply with the law carried harsh penalties. Any state found in noncompliance (defined as having more than 50 percent of its drivers going faster than 55 mph for two successive years) could lose part or all of its federal highway funds. For another thing, since advocates of the limit justified it on the basis of saving lives, any politician opposed to it found herself or himself painted as favoring more traffic fatalities. Finally, despite the evidence, the public thought that the speed limit actually saved a great deal of fuel. Thus while many opposed the NMSL rhetorically, there was little pressure for repeal. This year, the situation changed dramatically. Ronald Reagan now has gone on record favoring repeal of the NMSL. Senator "Chic" Hecht, the Nevada Republican, and Representatives Barbara Vucanovich (R-NV), Dave McCurdy (R-OK), and James V. Hansen (R-UT) all have introduced legislation to repeal or modify the NMSL. Nevada is going to court challenging the NMSL, and eleven Western governors have petitioned Congress for its repeal.

For the first time since the NMSL was imposed, several states are in danger of losing some federal highway funds for failing to comply with the 55 mph limit. Vermont, Arizona, and Maryland were found in noncompliance in 1984 and 1985. As a result, the Department of Transportation plans to withhold \$5.1 million from Arizona and \$1.9 million from Vermont. Maryland is contesting DOT's findings. In addition, Rhode Island and New Hampshire were found in noncompliance last year; if they are found in noncompliance this year, they also could lose federal funds. As a result, the 55 mile limit is facing its first in-depth review since enactment--a process revealing the limit's assumed benefits to be a mirage.

As such, it is time for Congress to admit that the 55 mph limit is not a major factor in saving either lives or fuel, while the cost on U.S. consumers of slower journeys has been considerable. To make matters worse, the limit, as with Prohibition, has turned almost all Americans into chronic law-breakers. Few drivers have been spared the frustration of driving dutifully at 55 mph only to be passed by almost every car and truck on the road. This drags the concept of law itself into disrepute. Saving lives on the highways, to be sure, is an important goal. But there are many more effective ways of doing so than by making Americans drive slower than in almost any other industrial country. The 55 mph speed limit serves no purpose. The federal government thus should free the states to set limits most appropriate to local conditions.

## DOES THE NMSL SAVE FUEL?

The notion that the 55 mile per hour speed limit helps conserve fuel has worked its way into the conventional wisdom so thoroughly that few drivers even question it. Yet the evidence shows that the benefits of the limit are minimal. As early as 1978, Dr. John Eberhart of the Department of Transportation's Office of Driver Research found that the limit at best reduces fuel consumption one percent. This would equal 73,000 barrels of oil daily. Yet his findings did not stop the Department of Transportation from continuing to claim that the NMSL could save up to 400,000 barrels of oil per day. Independent studies, meanwhile, indicate that the actual savings, if any, would be even lower than Eberhart estimated. These studies project fuel savings of one-half of one percent.

Currently about 7.3 million barrels of oil are used for transportation each day. One percent of this, as noted, is 73,000 barrels per day, or 26,645,000 barrels per year. When measured against annual domestic oil consumption of around 5.9 billion barrels, the fuel saved is barely worth noting.

But even this saving may be phony when measured against the cost it imposes. At current oil prices (around \$13 per barrel), the value of the fuel allegedly saved by the NMSL would be just under \$350 million. By contrast, according to a just-released study of the National Research Council, a panel operating under the auspices of the National Academy of Sciences, the NMSL costs the nation about one billion man-hours per year in added driving time.<sup>1</sup> Even at the minimum wage of \$3.65 per hour, this amounts to \$3.65 billion--more than ten times the value of the fuel saved at current prices, and more than three times the value of the savings when the price of oil peaked. This figure does not include the estimated \$200 million spent by states annually to enforce the measure. In pure economic terms, the 55 mph limit is a very bad bargain.

## DOES THE 55 MILE PER HOUR LIMIT SAVE LIVES?

In the first year of the NMSL, national traffic fatalities fell 15.3 percent. Speed limit advocates immediately saw a causal relationship between the two events, and "Stay Alive at 55" was born. The presumed link, however, seems illusory. If it existed, then traffic deaths would rise and fall in conjunction with changes in the average speed traveled. Yet this has not been the case. Although the average speed on the nation's highways has increased over the last ten

---

1. "Does Speed Kill?" Newsweek, July 21, 1986, p. 14.

years, as drivers increasingly ignored posted limits and enforcement efforts diminished, the number of highway fatalities per 100 million miles traveled has continued to decline. In 1982, for example, there was a 12.7 percent decrease in traffic deaths, even though average highway speeds rose to 59 mph from 57.8 mph, or 2.1 percent the previous year.<sup>2</sup> There has been, moreover, a steady decline in traffic fatalities averaging 3.1 percent per year since statistics were first compiled in 1922. The current decline seems just a continuation of an established trend.

Overseas experience also questions the role of speed as a factor in traffic fatalities. In West Germany, for example, where except for a brief experiment in the 1970s, there has been no speed limit on its high-speed expressway, the Autobahn, fatalities steadily decreased between 1973 and 1979, even though the aggregate number of miles traveled increased 50 percent. In neighboring France, which has one of the strictest speed limits on the continent, the death toll increased by 3.3 percent between 1978 and 1979, while West Germany's death toll decreased by 11.5 percent for the same period.<sup>3</sup>

What, then, is responsible for the steady drop in the U.S. death rate? In particular, what caused the dramatic decline in 1974? While there is no single factor that can be identified as primarily responsible for the trend toward fewer highway deaths, a number of factors appear to have a significant effect on highway safety.

#### The 1974 Fall in Fatalities

When the Arab members of OPEC imposed their embargo against the West in 1973, it immediately affected the daily lives of Americans. For one thing, gasoline prices rose sharply. For another, largely as a consequence of the federal price and allocation regulations imposed on oil, severe shortages appeared at the gasoline pump. The nation's economy, moreover, was thrown into recession. The influence of these factors on driving was immediate.

Americans responded to higher gasoline prices by driving less in 1974 on weekends and for recreation. Experts estimate the reduction at between 25 percent and 30 percent. It is during weekend and recreational driving that fatal accidents are most likely to occur. The reasons: weekend and recreational drivers are more likely to be fatigued, have abused alcohol, or be traveling unfamiliar roads. All of these push up the accident rates.

---

2. "Does the 55 mph Speed Limit Save Lives?" The Wall Street Journal, April 28, 1986.

3. "The 55 mph Myth," Road and Track Magazine, May 1980, p. 157.

The change in driving habits was not 1974's only significant new factor. That year Congress required that all automobiles sold in the U.S. be equipped with the "ignition interlock," a device to prevent a driver from starting his or her car before buckling the seat belt. That year, therefore, a significant number of Americans used a seat belt for the first time. This drove down fatalities, for it is widely recognized that the use of a seat belt dramatically reduces the likelihood of being killed in an automobile accident.

If the reduction in maximum highway speeds were the key factor responsible for the 15.3 percent drop in fatalities, then the decline would have followed the law's enactment. Yet the decline in traffic fatalities actually preceded the imposition of a national speed limit. In fact, highway deaths per 100 million miles traveled actually rose in the first few months after the speed limit was imposed.

In October 1973, when the OPEC embargo was announced, somewhat more than 4.4 people were killed on the nation's highways per 100 million miles traveled. By February 1974, one month before the National Maximum Speed Law was enacted, the fatality rate had dropped to slightly more than 3 per 100 million miles traveled. Over the next nine months, with the newly instituted speed limit, the fatality rate rose to close to 4 persons per 100 million miles traveled by November 1974, then dropped somewhat in December. The fatality rate in December 1974 under the NMSL was nearly a third higher than it was in December 1973 without it.<sup>4</sup>

Highway deaths have continued to decline since 1974, even though average speeds have crept back up. Congress and the states should be aware of this.

#### HOW TO SAVE LIVES

Of all the measures that help reduce highway fatalities, three are the most important, overshadowing the speed restrictions. If Congress and the states wish to cut the highway death rate they should focus on these:

- 1) Remove Drunk Drivers from the Road.

From one-third to one-half of all highway deaths are believed to be alcohol-related. Increased public concern is leading to stiff new penalties for drunk driving in many states. As important as the legal

---

4. Road and Track Magazine, op. cit.

sanctions may be the public's changing attitudes. There is now a social stigma attached to driving while under the influence of alcohol or drugs.

### 2) Encourage Seat Belt Use.

Many states are now enacting mandatory seat belt laws, while voluntary use by the public is increasing. A similar trend is taking place with regard to mandatory use of "infant seats" for children under age five. Using a seat belt is the single most effective individual action to prevent serious injury in the event of an accident.

### 3) Reduce Speed Variance.

Last December, Dr. Charles A. Lave of the University of California at Irvine discussed the matter of speed variance in the American Economic Review. He wrote:

...there is no statistically discernible relationship between the fatality rate and average speed, though there is a strong relationship to speed variance. When most cars are traveling at about the same speed, whether it is a high speed or a low one, the fatality rate will be low--presumably because the probability of collision will be low. Variance kills, not speed.

Lave's study revealed that when cars were entering and leaving highways with frequency, or where, for other reasons, there could be a wide variation in the speed of cars traveling on the same highway, accident rates and fatalities rose. To reduce fatalities, therefore, traffic engineers and law enforcement officers should attempt to ensure that all traffic on a road travels as close to the same speed as possible. Lave concludes that his findings suggest that drivers who drive too slowly should be ticketed as readily as those who drive too fast. Indeed, prior to the imposition of the 55 mph limit, many states had "minimum speed" laws which were strictly enforced.

### ENFORCEMENT OF THE NMSL: CATCH 22

Advocates of the 55 mph limit claim that the measure enjoys widespread public support. They point to polls which indicate that more than 70 percent of the nation's drivers favor the limit. A more accurate barometer of public attitudes is surely public behavior. Law

---

5. "Charles Lave, "Speeding, Coordination and the 55 mph Limit," American Economic Review, December 1985, p. 1159.

enforcement officials report more than 70 percent of America's drivers exceed the 55 mph limit.

Widespread violation of the 55 mph limit has prompted many jurisdictions to manipulate data regarding compliance with the NMSL to avoid losing federal highway funds. So extensive is this practice of cooking the books that 37 states would be in noncompliance if statistics were reported honestly.<sup>6</sup> New York State, for instance, reported for 1985 that 45.6 percent of New York drivers exceeded the 55 mph limit. In reality--its "unadjusted" figures--71.1 percent exceeded the limit. New Jersey had an adjusted compliance rate of 46.1 percent, but an unadjusted rate of 60.8 percent; while Connecticut had an adjusted rate of 36.8 percent, but an unadjusted rate of 62.15 percent.<sup>7</sup> The NMSL may well be the most widely violated statute since Prohibition.

As with Prohibition, the NMSL has spawned an industry whose sole purpose is to evade the law. Devices have been developed and are sold by the millions to detect the police radar units used to spot speeders. One firm, Cincinnati Microwave, sold 400,000 units last year alone. At a price of \$245 to \$295 each, the radar detection gadgets from just this one firm cost the driving public over \$100 million.

States also try to get around the NMSL. Compliance is measured by sensors embedded in the road which count the number of cars exceeding 55 mph. The states, however, have learned how to ensure that the number of speeders passing over these sensors is reduced. One way is to embed the sensors near the crest of a steep hill. Another is to station state patrol cars prominently near the sensors, so that drivers will slow down. As a result, the sensors yield numbers which show the states in compliance with the NMSL.

## CONCLUSION

A dozen years after its enactment, it is evident that the National Maximum Speed Law was a seriously flawed piece of legislation. The assumption was that reducing speeds would help conserve significant amounts of motor fuel. This has not proved to be the case. Had it not been for the mistaken connection made between imposition of the 55 mph limit in 1974 and the dramatic decline in traffic fatalities that year, the law would probably not be on the

---

6. Newsweek, op. cit., p. 21.

7. Ivor Peterson, "Rebellion Grows in West and Plains Over U.S. Speed Limit," The New York Times, June 13, 1986, p. A14.

books today. There is more than ample evidence now to refute the contention that the NMSL is a major factor in reducing traffic fatalities on the nation's highways. In short, 55 is a law the U.S. can safely live without.

Milton R. Copulos  
Senior Policy Analyst