United States General Accounting Office 136217

GAO

Testimony

For Release
on Delivery
Expected at
2:00 p.m. EST
Thursday
February 25, 1988

Highway Safety: Monitoring Practices To Show Compliance With Speed Limits Should Be Re-examined

Statement of
Kenneth M. Mead, Associate Director
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Water Resources, Transportation,
and Infrastructure
Committee on Environment and Public Works
United States Senate

Mr. Chairman and Members of the Subcommittee:

We appreciate this opportunity to appear before the Subcommittee to discuss the results of our forthcoming report on how the states monitor compliance with the 55 mph national maximum speed limit. We reviewed this issue at the request of this Subcommittee, and we focused our work on whether state practices and procedures for collecting data on highway speeds followed federal law and Federal Highway Administration (FHWA) guidelines. We also examined the speed monitoring program in relation to the congressional goal of improving highway safety.

Our testimony today will make two basic points. First, our review of monitoring practices and procedures in six states found them to be, with only a few exceptions, in accordance with FHWA guidelines. Second, the current speed monitoring program and the basis for penalizing the states for noncompliance, in our opinion, bear little relation to the goal of improving highway safety. With regard to the second point, we wish to emphasize that we did not examine the safety benefits of the 55 mph speed limit. Instead, our review focused on the monitoring program and the basis for penalizing states determined to be out of compliance.

BACKGROUND

The 55 mph national maximum speed limit, originally enacted by the Congress as a temporary fuel conservation measure in 1974, was made permanent in 1975, after the energy crisis had abated, because it apparently saved lives. At first, the Congress required only that states certify that they were making an effort to enforce the

speed law. In 1978, however, the Congress established the penalty provision whereby a state could forfeit up to 10 percent of its primary, secondary, and urban highway funds if a set percentage (currently 50 percent) of its motorists on 55 mph posted highways exceed the limit.

FHWA has issued guidelines to the states on how to select the sample of roads where speeds will be recorded, where to locate monitoring equipment, and how to conduct the speed monitoring sessions. Originally, speeds were to be recorded only under "free-flow" traffic conditions. However, in 1980, FHWA changed the guidelines to allow states to record speeds under more representative travel conditions. Most states switched to 24-hour monitoring and began to record speeds even when traffic was congested and during inclement weather.

In 1987, the Congress allowed the states to raise speed limits on rural interstate highways to 65 mph. However, states that raise the limit to 65 mph are not required to monitor motorist speeds on those roads. To date, 38 states have raised the speed limit to 65 mph on all or part of their rural interstate highways. Still, more than 500,000 miles of roads remain posted at 55 mph. These roads remain subject to speed monitoring, and the states are subject to sanctions if more than 50 percent of traffic on these roads exceeds the 55 mph speed limit. Recently, three states went out of compliance with the 55 mph speed limit law. Two of these, California and North Dakota, had raised the speed limit to 65 mph on rural interstate highways. The other state that went out of

compliance, New York, has retained the 55 mph speed limit on its rural interstates.

In March 1987, the Chairman of this Subcommittee asked us to examine how state and federal agencies are fulfilling their responsibilities under the law. As agreed with the Subcommittee, to accomplish our objective, we interviewed federal and state highway and law enforcement officials in six states: Arizona, Idaho, Maryland, Maine, New York, and Vermont. Although we did not attempt to develop a statistically representative sample, we believe that these six states are illustrative of the broad range of highway conditions in the nation and of the problems that some states have experienced in complying with the speed monitoring law. Both densely traveled roads in eastern states and lightly traveled roads in western states were included.

In addition to conducting interviews and reviewing documents, we visited 63 of the 204 speed monitoring sites located in the six states to find out if they were properly located. We also witnessed several demonstrations of the different types of equipment used to collect speed data and examined the speed monitoring plans and reports of the past 5 years for the six states in our survey.

COMPLIANCE WITH FHWA MONITORING REQUIREMENTS

The information gathered from the six states that we visited indicates that their monitoring programs generally meet federal requirements. However, we did identify several problem areas, including inconsistent FHWA oversight of speed monitoring programs

in the states that we visited. FHWA officials told us that they are aware of the problem and that they are planning field trips to all FHWA regional offices to reassess oversight practices and to ensure greater consistency. We also encountered several cases where speed monitoring sites were inappropriately located and some instances of possible bias in the speed data caused by state police patrol tactics. For the most part, these problems are being or have been addressed by the appropriate agencies.

Inappropriate Monitoring Site Locations

FHWA guidelines on the placement of speed monitoring sites stipulates that they should not be on sharp curves, near traffic signals, or near other unusual features that would affect travel speeds. In visits to speed monitoring sites, we found most sites were located in accordance with FHWA guidelines. However we found several that we believe were inappropriately located. These included sites near traffic lights, places where traffic merged, and speed advisory signs.

For example, of nine sites we visited in Maryland, one was between two traffic lights where it would be difficult for a vehicle to reach a speed of 55 mph if either signal were red. In New York, one of the eight sites that we visited was on a road that was not posted 55 mph throughout the 5-mile segment. It was a residential neighborhood where posted speeds ranged from 15 to 30 mph. There was a 55 mph sign at the place where speeds were being recorded, but it was hidden behind a tree. These cases were the exception, not the rule.

State Police Involvement

In each of the six states that we visited, state police officials receive copies of the state's speed monitoring statistics. In at least one state, the police receive site-specific results, and they occasionally use this information to focus their enforcement activities in areas where high speeds are recorded. This practice could bias the data collection effort, although none of the police officials with whom we spoke said they purposefully try to influence the speed data by patrolling sites during monitoring sessions.

This has not always been the case. For example, in two of the six states, patrol cars were stationed at monitoring sites while speeds were being recorded. In both cases, FHWA division officials noted the infraction and disregarded the speed data collected during these sessions.

SPEED MONITORING DATA DO NOT ALWAYS REFLECT STATE/HIGHWAY SAFETY OR ENFORCEMENT EFFORTS

We found that state compliance with the 55 mph speed law, at least as measured by the criterion that at least 50 percent of the traffic on 55 mph posted roads obey the limit, is not necessarily the best indicator of highway safety, nor does the level of compliance necessarily reflect speed enforcement efforts by state police. States with relatively good compliance records, as reflected by program monitoring data, do not always have the best highway safety records in terms of accident fatalities, and states that aggressively ticket speeders do not necessarily motivate motorists to comply with the 55 mph speed limit.

The 55 mph speed limit was made permanent, in part, because the evidence suggested that it saved lives. Although the 55 mph speed limit may enhance highway safety, we did not find any evidence that the current procedures for monitoring and judging state compliance and determining sanctions correspond to highway safety. In the states we visited, we found no relationship between the current measure of compliance (percentage of traffic exceeding 55 mph) and the fatality rate on rural interstates. For example, Idaho had the best compliance record of the six states, but also had the second highest fatality rate. On the other hand, Maine, with the second highest percentage exceeding the 55 mph speed limit, had the lowest fatality rate. (See app. I.) Other studies have reached similar conclusions.

How successful a state is in remaining in compliance is, at least in part, a function of the types of roads posted 55 mph. If a state only posts its best highways at 55 mph, it will have more difficulty staying in compliance than a state that also posts less well-designed roads at 55 mph. Vehicles will travel faster on the better roads. In addition, a state, like New York, that chooses to retain the 55 mph speed limit on rural interstates for safety purposes might find itself facing sanctions it could have avoided by raising the limit. Moreover, states with compliance problems can take actions such as raising the speed limit to 55 mph on less well-designed roads. Because traffic will normally be slower on these roads, their speed monitoring data will improve, but safety might suffer as a result.

The current standard for judging compliance does not consider the differences in road design or the seriousness of the speeding infraction. All roads that are being monitored are weighted equally in determining whether a state is complying with the speed law. Very high-speed driving on rural two-lane roads is weighted the same as a violation that is just slightly over the limit on a modern interstate highway with controlled access and multiple divided lanes. Thus, minor infractions on relatively safe roads are treated no differently from high speed violations on relatively less safe ones.

The current compliance measurement system also does not take into account a state's effort to control speeding. For example, in 1985 Maryland state police issued more than 180 speeding citations per mile of road posted 55 mph. This was between 2 and 13 times the citation rates of the other six states that we visited. Nevertheless, Maryland was unable to stay in compliance. In general, we found little relationship between state police enforcement efforts and recorded highway travel speeds.

ALTERNATIVE APPROACHES TO MEASURING COMPLIANCE AND ASSESSING SANCTIONS

A number of state officials responsible for the 55 mph monitoring program told us that the current criterion is an inappropriate basis for assessing sanctions. They believe that other factors, such as the type of road where the speeding occurs and how fast the vehicles are traveling, should also be considered. Some believe that a state's enforcement efforts, as measured by the number of citations it issues for violating the 55 mph speed limit,

also should be considered before penalties are assessed. Some studies have suggested point systems where greater weight would be given to very high-speed driving and to violations on less well designed roads.

- - - - - -

To summarize, although we found some discrepancies in state speed monitoring practices, we believe that, on balance, the speed limit monitoring programs in the states we visited are generally in compliance with federal regulations. However, our review leads us to conclude the current compliance measurement program does not correspond with the broader congressional goal of improving highway safety. The approaches available to the states to remain in compliance, such as raising speed limits, may work against the goal of making the highways safer.

Therefore, our forthcoming report will point to the need for a reassessment of the compliance measurement program by the Secretary of Transportation. In particular, we believe that the Secretary should examine the feasibility of introducing a weighting scheme that places greater emphasis on high speed driving, violations on roads with poorer safety records, and the intensity of a state's enforcement efforts. The Secretary should report the results of this examination to the Congress and recommend any legislative changes necessary to improve the compliance monitoring system.

This concludes our prepared statement. I will be pleased to respond to any questions you may have.

APPENDIX I

COMPARISON OF FATALITY RATES ON RURAL INTERSTATES AND MEASURED SPEED, FISCAL YEAR 1985

State	Fatality rate[a]	Rank	Percent over 55 mph on rural interstates[b]	Rank
Arizona	2.09	1	84.1	3
Idaho	1.94	2	69.3	6
Maine	0.53	6	85.1	2
Maryland	0.84	5	83.3	4
New York	0.92	3	89.7	1
Vermont	0.87	4	76.3	5

[a] Measured in fatal accidents per 100,000,000 vehicle miles.
[b] Unadjusted data

Note: Rural interstates are the only system posted almost entirely at 55 mph and thereby can be compared with fatality rates on 55 mph posted roads in different states.

(342779)