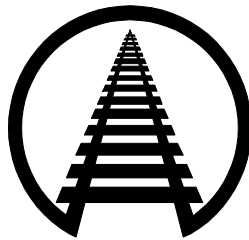


STATEMENT OF
EDWARD R. HAMBERGER
PRESIDENT & CHIEF EXECUTIVE OFFICER
ASSOCIATION OF AMERICAN RAILROADS



BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON RAILROADS

HEARING ON GRADE CROSSING SAFETY

JULY 21, 2005

On behalf of the members of the Association of American Railroads (AAR), I am grateful for the opportunity to discuss the critical issue of grade crossing safety. AAR members account for the vast majority of freight railroad mileage, employees, and revenue in Canada, Mexico, and the United States.

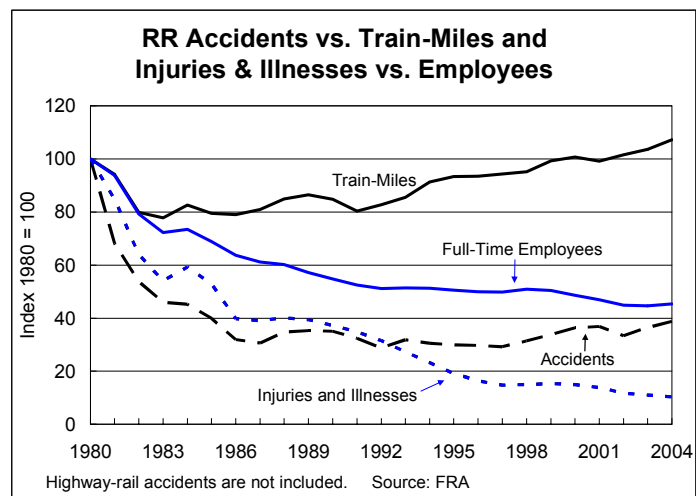
Before I begin, I would like to express the gratitude of our nation's major freight railroads to the members of this subcommittee and the other members of the Committee on Transportation and Infrastructure for their hard work on TEA-21 reauthorization. Through your leadership on this issue you have shown that you understand the importance of transportation to the growth and vitality of our nation.

Overview of Rail Safety

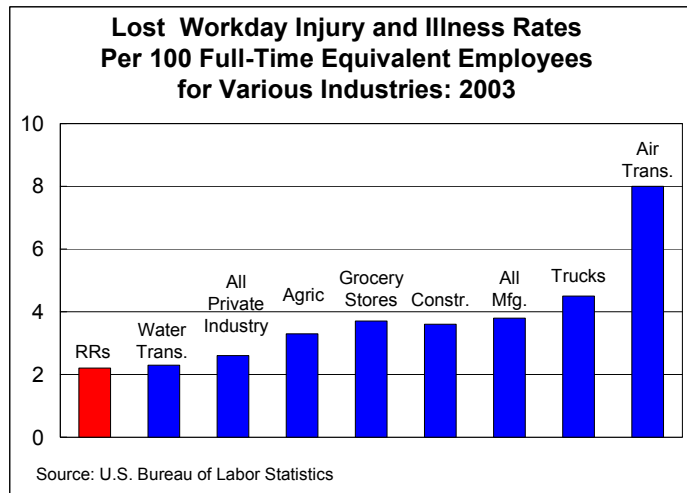
The safety of their employees, their customers, and the communities they serve is of paramount importance to our nation's freight railroads. And as I noted in testimony to this committee this past April, railroads have achieved tremendous improvement in safety since the Staggers Rail Act of 1980 partially deregulated the industry.

According to Federal Railroad Administration (FRA) statistics, the rail industry has reduced its overall train accident rate 64 percent from 1980 to 2004 and 13 percent since 1990. Meanwhile, the rate of

employee casualties has been reduced 77 percent since 1980 and 66 percent since 1990, and 2004 was the lowest rate on record.



According to the Bureau of Labor Statistics, railroads have lower employee injury rates than other modes of transportation and, indeed, most other major industry groups, including agriculture, construction, and manufacturing.¹ U.S. railroads also have employee injury rates well below those of most major European railroads.



The FRA itself recognizes the progress railroads have attained in overall safety. In a June 2004 publication, the FRA stated “By nearly every indicator, long-term safety trends on the Nation’s railroads appear very positive. Overall, the safety performance record of the nation’s railroads has been one of continuous improvement.” These major improvements have come about precisely because railroads recognize their responsibilities regarding safety and devote enormous resources to its advancement.

Railroads, though, are not satisfied with the status quo, and will continue their efforts to address rail-related safety problems, including the subject of this hearing. Indeed, today the most critical rail-related safety problems are collisions at highway-rail grade crossings and incidents involving trespassers on railroad rights-of-way. In 2004, these two categories accounted for 94 percent of rail-related fatalities. Although these incidents usually arise from factors that are largely outside of railroad control, and even though highway-rail crossing warning devices are properly considered motor vehicle

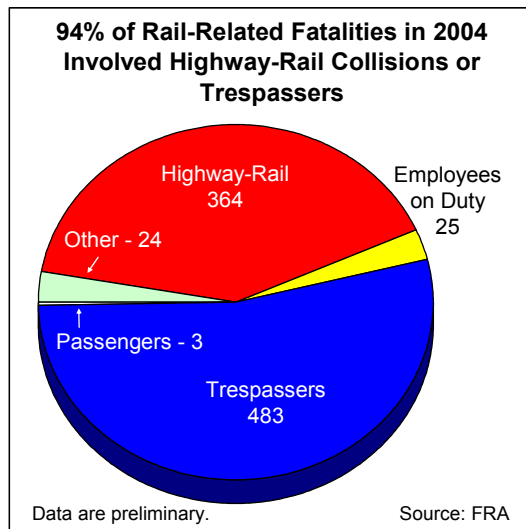
¹ There are minor technical differences regarding how injury and illness rates are determined in the rail industry versus other industries, but these differences do not affect the general finding noted here.

warning devices there for the benefit of motorists, not trains, railroads are committed to efforts aimed at sharply reducing the frequency of crossing and trespasser incidents.

Background on Highway-Rail Crossings

A highway-rail crossing usually refers to the general area where a railway and roadway intersect. A crossing is either “public” (i.e., the roadway is a public road) or “private” (i.e., the roadway is a private road), and either “at-grade” (the railroad and roadway join at the same elevation) or “grade-separated” (the railroad and roadway cross at different levels). As of December 31, 2003, there were 248,564 at-grade highway-rail crossings in the United States, including 150,744 (60.6 percent of the total) public vehicle crossings and 95,857 (38.6 percent) private vehicle crossings.² These crossings are distributed nationally more or less in proportion to the rail mileage within each state. Highway-rail crossings are protected either by train-activated warning “active devices” (including gates, flashing lights, bells, and/or highway signals) or by “passive devices” (including crossbucks, stop signs, and/or yield signs).

Essentially all problems at highway-rail crossings occur at non-separated crossings. Moreover, because motor vehicle traffic volume is generally much higher at public crossings than at private crossings, a large majority of problems associated with highway-



² There were also 1,963 pedestrian crossings.

rail crossings occur at public crossings. Thus, most attention to highway-rail crossing problems is directed to those associated with motor vehicles at public, at-grade crossings.

By far the biggest problems, of course, are associated with collisions at crossings, which often involve serious injury or loss of life. We should also remember the forgotten victims of grade crossing accidents: the locomotive engineers and conductors, who are usually helpless (and blameless) to prevent an accident, but have a “front and center” view of the tragedy involved and must live forever with its memory.

Reducing Accidents at Grade Crossings

Collisions, injuries, and fatalities at grade crossings have fallen steadily. In 1980, 10,611 grade crossing collisions resulted in 833 fatalities and 3,890 injuries. Based on

preliminary FRA data, by contrast,

in 2004 there were 3,050 collisions (down 71 percent) involving 368

fatalities (down 56 percent) and

1,071 injuries (down 72 percent).

Preliminary FRA data for this year

show that the number of highway-

rail collisions is down 8.1 percent

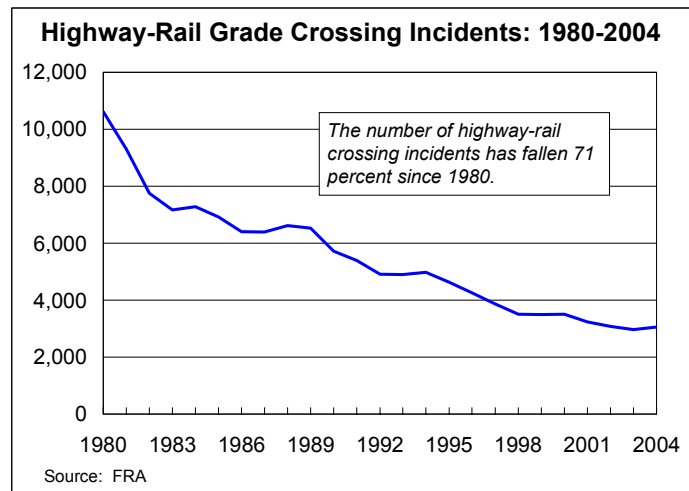
through the first four months of 2005, fatalities are down 5.6 percent, and injuries are

down 9.5 percent.

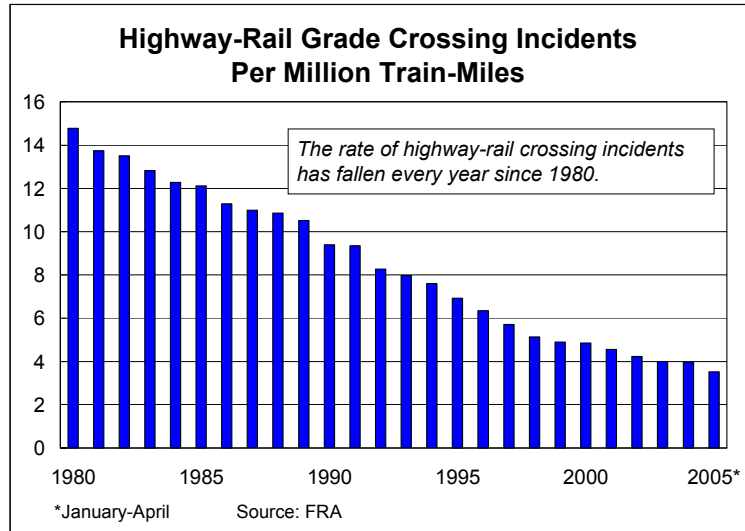
The decline in the absolute number of highway-rail crossing accidents has occurred

at the same time that rail traffic has been rising. In fact, today U.S. freight railroads are

hauling more freight than ever before. Thus, the accident rate — the number of accidents



per number of train-miles — has fallen even more sharply than the number of accidents, and it has fallen every year since 1980. For 2005 through April, the rate is down 10 percent from the first four months of 2004.



The accident rate has fallen

even more sharply if one also considers the huge increase in the number of motor vehicle-miles on our roadways in recent years.

Nevertheless, the number of grade crossing accidents is still too high. That’s why railroads are putting forth significant effort, and expending significant resources, on a variety of approaches designed to reduce the number of crossing accidents.

For example, CSX has strengthened its grade crossing safety program with key initiatives including improving its reporting operations to ensure independent auditing and more advanced analysis of grade crossing accidents. CSX also has a \$30 million program to clear cut vegetation along railroad tracks to enhance the public’s visibility at grade crossings with no active warning devices, while Union Pacific (UP) has entered into long-term, performance-based vegetation control contracts to improve sight distance. UP has also completed 850 crossing upgrade projects in the last two years — crossings that were not addressed with federal Section 130 funds — upgrading passive crossings to active and improving on existing active crossings.

Although local communities are often opposed to closing grade crossings — which, as discussed further below, is the most effective way to reduce grade crossing accidents — all AAR member railroads are working closely with states, communities, and private property owners to close unnecessary or duplicate crossings. Since 2000, for example, BNSF has closed more than 2,500 at-grade crossings and has a goal of closing 420 more in 2005. Kansas City Southern is partnering with the Missouri and Mississippi Departments of Transportation to improve safety by upgrading crossing signals or closing crossings.

Norfolk Southern is partnering with the FRA and the North Carolina Department of Transportation in a new grade crossing safety research project that uses locomotive-mounted digital video cameras to capture real-time data of actual highway-rail grade crossing collisions and trespass incidents. The FRA noted, “The project results will be used to develop more effective safety measures to better protect lives at grade crossings and prevent trespass incidents throughout the country.”

The unfortunate and frustrating reality, though, is that, notwithstanding rail efforts to reduce the number of crossing accidents, the vast majority of such accidents are caused by inappropriate motorist behavior. According to a June 2004 report by the U.S. Department of Transportation’s Office of Inspector General, “Risky driver behavior or poor judgment accounted for 31,035 or 94 percent of public grade crossing accidents” from 1994-2003. Consequently, grade crossing accident prevention efforts have centered on improved warnings and educating the public about the life-or-death consequences of their actions at grade crossings.

Motorist error is a major problem even at crossings equipped with active warning devices. It might surprise you to know that since 1980, approximately 50 percent of all

highway-rail crossing incidents involving motor vehicles, and some 48 percent of fatalities, occurred at crossings equipped with active warning devices. Motorists too often drive around lowered gates, ignore flashing lights and ringing bells, and proceed through red traffic lights, often with tragic results. An analysis of FRA crossing incident data suggests that over the past 20 years, approximately 5,500 lives would have been saved at public highway-rail crossings if motorists had done nothing more than obey traffic laws (i.e., stop and wait for the train to pass) when an *active* signal warned them that a train was present or approaching. In addition to disregard for warning devices, common motorist errors include misjudgments of speed and stopping capabilities, misunderstanding of warning signs and signals, and failure to avoid collisions due to distraction and inattention.

Most people probably do not realize that the destructive force of a fast-moving, fully-loaded freight train relative to an automobile is roughly equivalent to the destructive force of that same automobile relative to an empty soda can. In other words, what a car can do to a soda can, a train can do to a car. Drivers need to be made aware of this, which is why education is so important.

An organization that deserves special commendation for its efforts to educate the public about the dangers of grade crossings and trespassing on railroad rights-of-way is Operation Lifesaver. Operation Lifesaver — a non-profit organization whose mantra is “look, listen, and live” — started in Idaho in 1972 and now has chapters in the 48 contiguous states, Alaska, and the District of Columbia. Each year, Operation Lifesaver’s presenters — many of whom are current or retired rail industry employees — provide free safety presentations to more than two million Americans, including school children, driver's education students, business leaders, truck drivers, and bus drivers. I urge you to

raise the level of federal support afforded this important educational organization.

Railroads also provide significant support to Operation Lifesaver.

Of course, education alone is not enough to reduce the number of tragic grade crossing accidents. Engineering and enforcement actions are also critical.

Because maximum safety can be realized if crossings are eliminated, the closing of crossings (and, where appropriate, grade separation of those that are not closed) is the ultimate engineering improvement. Over the past two decades the number of public at-grade highway-rail crossings has fallen sharply (by 30 percent from 1980-2003), indicating that substantial success in this area has been achieved. But much more can be done. When considered objectively, thousands of existing crossings serve no significant transportation mobility or access purpose. Many of these crossings remain open only because small but vocal local opposition transforms what should be an objective transportation safety decision into an emotional political confrontation.

Indeed, until transportation policy officials are properly authorized to make final decisions on crossing closures, politics and parochial driving convenience will continue to dominate crossing closure debates. The result will be continued accidents at crossings that should be closed. To instill more rationality into the system, railroads suggest that the Federal Highway Administration should formulate guidelines to help state transportation agencies identify and evaluate candidate crossings for closure and determine whether to permit the installation of new grade crossings.

Grade separation can cost \$10 million or more for a single crossing. As such, it is far too expensive for universal application and can usually be justified only at crossings with a very high volume of train and/or other traffic. Where objective analysis deems it

the best option, however, grade separation should be pursued, especially on major railway and roadway routes. The Interstate Highway System, now more than 46,000 miles long, by design has no at-grade highway-rail crossings. Their absence ensures that motor vehicle traffic moves at peak speed and efficiency across the network. Similarly, the 161,000 mile National Highway System (NHS), the backbone of this country's road network, would be much more effective if it too were void of grade crossings. Thus, the elimination or grade separation of the approximately 4,500 highway-rail grade crossings currently on the NHS should be a long-term goal. Likewise, federal guidelines should be adopted which would require the elimination (by separation or closure) of all grade crossings on any high-speed passenger rail lines that are built.

The characteristics of a particular crossing determine the type of warning devices that state transportation authorities decide is appropriate at that crossing. Factors that help predict the number and severity of accidents at a particular crossing include highway traffic volumes, train traffic, maximum train speed, number of main tracks, number of highway lanes, and whether the crossing is rural or urban. Crossings with a higher accident potential call for active warning devices. Over time, the number of public grade crossings protected by active devices has risen from 25 percent of the total (53,790 crossings) in 1980 to 42 percent of the total (63,335 crossings) in 2003. The increase in active warning devices at crossings is almost certainly a major reason for the reduction in the number of accidents over time. Depending on the characteristics of a particular crossing, state authorities might determine, of course, that up-to-date passive devices provide adequate protection.

In late June 2005, the FRA announced a final rule requiring improvements in the crash survivability of locomotive event recorders (also known as “black boxes”). Under the rule, which was formulated with the active participation of the rail industry and rail labor, event recorders will be hardened to prevent the loss of data from exposure to fire, impact shock, immersion in liquid, and other potential damage resulting from train accidents. Currently, locomotive event recorders capture information such as train speed, use of automatic air brakes, throttle position, and cab signal indications. Under the new rule, additional data — including horn activation, cruise control functions, and train control operating directives sent to the engineer’s onboard display — will also have to be captured. The rule gives railroads four years to replace older-style event recorders that use magnetic tape to store data with new electronic memory modules. The rule requires railroads to improve inspection, testing, and maintenance procedures, and requires railroads to keep data stored on event recorders involved in accidents for one year, up from the current 30-day requirement.

The rail industry will cooperate fully with this new requirement and hopes it leads to improved safety at rail crossings and elsewhere in rail operations.

The Section 130 Program

Despite the fact that accidents continue to occur at crossings with active warning devices, it is clear that at crossings with higher accident potential, an active warning device can improve safety. However, the high cost of current active warning devices — approximately \$150,000, on average, per installation — has limited the number of crossings at which they have been installed. Research into improved low-cost grade crossing warning systems is continuing, but increased federal funding for highway-rail

crossing hazard abatement through an expansion of the existing Section 130 program would permit additional crossings to be protected much more quickly with available warning device technology.

The ability to use federal funds for improvements to highway-rail crossings has existed since 1917, according to the Federal Highway Administration (FHWA).³ Federal funding specifically for crossings was first addressed in 1933 when Congress passed the National Industrial Recovery Act, which authorized \$300 million in state grants to pay for eliminating hazards at grade crossings. More recently, Section 203 of the Highway Safety Act of 1973 (which was later incorporated in Section 130 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 — hence the program’s name) provides federal Highway Trust Fund money to states and local governments to eliminate or reduce hazards at highway-rail crossings on public highways.

The Section 130 program was retained under TEA-21 as a set-aside under the Surface Transportation Program. Total annual Section 130 funding today is approximately \$155 million per year, divided by formula among the states. The vast majority of Section 130 funds have been spent on the installation of new active warning devices such as lights and gates, upgrading existing devices, and replacing or improving grade crossing surfaces.

Without funding dedicated to or earmarked for the Section 130 program, grade crossing needs would likely fare very poorly in competition with more traditional highway needs, such as highway capacity expansion and maintenance. In fact, the primary reason that a separate grade crossing safety improvement program was begun in 1973 was that highway safety, and especially crossing safety, received limited priority for available

³ *Railroad-Highway Grade Crossing Handbook*, Second Edition, FHWA-TS-86-215, September 1986.

highway dollars. The grade crossing improvements paid for with Section 130 funds have directly reduced the number of collisions, deaths, and injuries at highway-rail grade crossings. In fact, according to the FRA, the Section 130 program has helped prevent some 51,000 injuries and 10,500 fatalities since 1974.

Preserving the Section 130 grade crossing improvement program as a set aside and increasing program funding are essential to ensure further reductions in grade crossing accidents and casualties. The budgetary treatment of the grade crossing safety program should be similar to other highway safety programs with regard to annual spending limits.

As you all know, the TEA-21 reauthorization bill is still in process. Section 1101 of the House bill would set aside \$210 million in FY 2005, \$215 million in FY 2006, \$220 million in FY 2007, \$227 million in FY 2008, and \$232 million in FY 2009 for grade crossing safety, for a total of \$1.1 billion. The FY 2005-2009 funding levels in the House bill would significantly increase safety for motorists at grade crossings. The House also makes a number of important programmatic improvements — for example, clarifying that hazard elimination funds (Section 152) are also available to be used for grade crossing improvement purposes.

Section 1401 of the Senate bill would set aside \$187 million annually from the Highway Safety Improvement Program for the Section 130 program for a total of \$935 million over fiscal years 2005-2009. While the Senate establishes this important set-aside, it also provides that highway-rail grade crossing improvements can be funded through the \$6.6 billion available for the Highway Safety Improvement Program. Railroads appreciate this important recognition that improvements at grade crossings are critical elements in the nation's effort to improve motorists' safety.

Railroads are grateful for the efforts of both the House and Senate to increase funding for this important program. To ensure the greatest level of protection for motorists, we strongly support the grade crossing language and funding levels contained in the House bill for FY 2005-2009.

Grade Crossing Warning Devices Are Highway Control Devices

The Section 130 program is not a “raid” on highway funds, for the simple reason that grade crossing warning devices are highway traffic control devices, there to protect motor vehicles, not trains. Grade crossing warning devices are generally not even visible to a locomotive engineer. Indeed, it has long been recognized authoritatively that safety at highway-rail grade crossings, by its very nature, is primarily a motorist responsibility.

For example, in 1935, the U.S. Supreme Court (in *Nashville, C. & St. L. Ry. v. Walters*) issued a landmark decision on the topic of grade crossings. Writing for the majority, Justice Brandeis wrote, “The railroad has ceased to be the prime instrument of danger and the main cause of [grade crossing] accidents. It is the railroad which now requires protection from dangers incident to motor transportation.”

In the early 1960s, the Interstate Commerce Commission conducted a comprehensive investigation of public safety at highway-rail grade crossings. The Commission’s report⁴, issued on January 22, 1964, contains a number of instructive observations, including the following:

“It is inescapable from a review of the facts developed in this proceeding that the only realistic conclusion that can be reached is that most of the rail-crossing accidents are caused by human failure arising from noncompliance by the drivers with the applicable Commission regulations or the State laws and regulations.

⁴ “Prevention of Rail-Highway Grade-Crossing Accidents Involving Railway Trains and Motor Vehicles,” 322 I.C.C., pp. 1-92, decided January 22, 1964.

...One of the basic elements to be considered in this proceeding is the cost of upgrading crossings and the installation of additional grade-crossing protection, and upon whom the cost burden should fall. For practical reasons this cost should be borne by public funds as users of the crossing plus the fact that it is the increasing highway traffic that is the controlling element in accident exposure at these crossings....Insofar as this record is concerned, the consensus supports a conclusion that the major costs of grade separation and protection at rail-highway grade crossings should be borne by the public since the public is the principal recipient of the benefits derived from grade-crossing protection.

...In the past it was the railroad's responsibility for protection of the public at grade crossings. This responsibility has now shifted. Now it is the highway, not the railroad, and the motor vehicle, not the train which creates the hazard and must be primarily responsible for its removal. Railroads were in operation before the problem presented itself and if the increasing seriousness is a result of the increasing development of highways for public use, why should not the cost of grade-crossing protection be assessed to the public."

The FHWA's own regulations today stipulate that "projects for grade crossing improvements are deemed to be of no ascertainable net benefit to railroads and there shall be no required railroad share of the costs."⁵

Notwithstanding this DOT finding, railroads currently spend more than a quarter of a billion dollars per year on grade crossings.

Comprehensive Highway-Rail Crossing Safety Agenda

In addition to increasing funding for the Section 130 grade crossing program, railroads support a comprehensive agenda of engineering, education, and enforcement actions that would further improve grade crossing safety.

The June 2004 report on grade crossings by the DOT Office of Inspector General included a number of recommendations regarding an action plan for grade crossing safety. While the AAR may have disagreements on certain of the finer points of some of the

⁵ See Code of Federal Regulations, Title 23, Chapter 1, Section 646.210.

recommendations, we do agree that, on balance, the recommendations constitute a helpful and sound approach to crossing safety.

In addition, the AAR respectfully suggests that Congress strongly consider the adoption and implementation of the following set of grade crossing safety and trespasser prevention initiatives, a few of which I have mentioned earlier:

- Adopt uniform national guidelines for grade crossing closures and construction.
- Require the adoption of highway design standards that ultimately eliminate grade crossings on the National Highway System (NHS).
- Consistent with a recommendation of the National Committee on Uniform Traffic Control Devices, modify the Manual of Uniform Traffic Control Devices to call for the addition of highway “Yield” or “Stop” signs, where appropriate, on the same post as a crossbucks at public passive grade crossings.
- Redefine “private grade crossings” in such a manner that all grade crossings that are routinely accessible to the general public are eligible for Section 130 funding.
- Fund a research and development program to design effective low-cost active warning systems for grade crossings, and continue evaluations of the effectiveness of more advanced warning device systems such as four quadrant gates.
- Require a minimum set-back or physical safety barrier between active railroad tracks and adjacent parallel trails, paths, and other recreational uses.
- Enhance grade crossing traffic law enforcement by requiring grade crossing safety as part of driver’s license educational curriculum and testing; by maintaining tough grade crossing traffic violation penalties; by providing appropriate incentives to promote the increased use of photo enforcement technology at grade crossings; and by retaining full-time FRA enforcement liaison officers in each of the agency’s regions.
- Strongly discourage the promotion of illegal activity on railroad property and continue to fund the national Operation Lifesaver grade crossing and pedestrian safety program.

Finally, in response to a legislative mandate, an FRA final rule on the use of locomotive horns at highway-rail grade crossings took effect on June 24, 2005. The final rule requires that locomotive horns be sounded to warn highway users at public highway-

rail crossings of an approaching train, a safety precaution that locomotive engineers have engaged in for more than 100 years.

The new rule provides an opportunity for localities nationwide to mitigate the effects of train horn noise by establishing new “quiet zones,” and details actions communities with pre-existing "whistle bans" can take to preserve the quiet they have become accustomed to.

Railroads support the sounding of locomotive horns because it saves lives. FRA research has shown that, all else equal, a whistle ban will result in a 62 percent average increase in collisions at grade crossings equipped with active warning devices. For this reason, the silencing of horns via the creation of “quiet zones” should be allowed only when it can be accomplished without jeopardizing public safety.

Thank you for the opportunity to testify today. The rail industry is committed to working closely and cooperatively with Congress, individual states, the FRA, and others to reduce the frequency of accidents at highway-rail crossings.