

area); Berea, Ohio; South Bend, Indiana; Salem, Massachusetts; and Madison, Wisconsin) at which more than 350 people testified. The extent of public comment and testimony throughout the country is evidence of the wide-ranging public interest in this rulemaking.

Because the vast majority of people reading this document will not have the benefit of having the NPRM at hand, a portion of the "Background" section which appeared in the proposed rule is being repeated here (with updated data, where appropriate) in order to provide the necessary perspective in which to view Congress' mandate and the resulting rule.

Approximately 4,000 times per year, a train and a highway vehicle collide at one of this country's 251,000 public and private highway-rail grade crossings. Of those crossings, more than 153,000 are public at-grade crossings—those crossings in which a public road crosses railroad tracks at grade. During the years 1997 through 2001, there were 17,601 grade crossing collisions in the United States. These collisions are one of the greatest causes of death associated with railroading, resulting in more than 400 deaths each year. For example, in the 1997–2001 period, 2,140 people died in these collisions. Another 6,615 people were injured. Approximately 50 percent of collisions at highway-rail intersections occur at those intersections equipped with active warning devices such as bells, flashing lights, or gates (approximately 62,000 crossings).

Compared to a collision between two highway vehicles, a collision with a train is forty times more likely to result in a fatality. The average freight locomotive weighs between 140 and 200 tons, compared to the average car weight of one to two tons. Many freight trains weigh in excess of ten thousand tons. Any highway vehicle, even a large truck, would be crushed when struck by a moving train. The laws of physics compound the likelihood that a motor vehicle will be crushed in a collision with a moving train. The train's weight, when combined with the likelihood that the train will not be able to stop to avoid a collision, results in the potential for severe injury or death in virtually every collision (it takes a one-hundred car train traveling 30 miles per hour approximately half a mile to stop—at 50 miles an hour that train's stopping distance increases to one and a third miles).

FRA is responsible for ensuring that America's railroads are safe for both railroad employees and the public. FRA shares with the public the responsibility

to confront the compelling facts surrounding grade crossing collisions.

In 1990, as part of FRA's crossing safety program, the agency studied the impact of train whistle bans (*i.e.*, State or local laws prohibiting the use of train horns or whistles at crossings) on safety in Florida. (In this document the terms "whistle" and "horn" are used interchangeably to refer to the air powered locomotive audible warning device required to be installed on locomotives by 49 CFR 229.129, and to steam whistles required to be installed on steam locomotives by 49 CFR 230.121. These terms do not refer to a locomotive bell, which has value as a warning to pedestrians but which is not designed to provide a warning over long distances.) FRA had previously recognized the locomotive horn's contribution to rail safety by requiring that lead locomotives be equipped with an audible warning device, 49 CFR 229.129, and exempting the use of whistles from Federal noise emission standards "when operated for the purpose of safety." 49 CFR 210.3(b)(3). The Florida study, which is discussed below (and which has been filed in the docket), documented how failing to use locomotive horns can significantly increase the number of collisions.

## 2. Who Is at Risk in a Grade Crossing Collision?

Many people, including a number of commenters to the NPRM, have expressed the view that highway drivers who disobey the law and try to beat a train through a crossing should not be protected at the expense of the peace and quiet of communities that parallel railroad tracks. FRA agrees that drivers who unlawfully enter grade crossings should be punished in accordance with appropriate traffic laws. However, strong public policy reasons argue in favor of reasonable measures to protect all who are put at risk at grade crossings, even drivers who disregard warning devices.

Overlooked in this debate are the many innocent victims of crossing collisions, including automobile and railroad passengers and railroad crews who, despite performing their duties correctly, are usually unable to avoid the collisions. Nationally, from 1994 to 1998, eight railroad crewmembers died in collisions at highway-rail crossings, and 570 crewmembers were injured. A number of locomotive engineers have commented that they or their colleagues have had to deal with the trauma associated with helplessly watching people being killed beneath their trains. Two hundred railroad passengers were also injured and two died. In

Bourbonnais, Illinois, in 1999, eleven passengers died in their sleeper car following a collision with a truck at a highway-rail crossing. In addition, since approximately one-half of all collisions occur at grade crossings that are not fully equipped with warning devices, some of the drivers involved in these collisions may have been unaware of the approaching train.

Property owners living near railroad rights-of-way can also be at risk. For example, on December 1, 1992, in Hiebert, Alabama, a freight train collided with a lumber truck. Three locomotives and nine rail cars were derailed, releasing 10,000 gallons of sulfuric acid into a nearby water supply. Residents living near the derailment site had to be evacuated because of the chemical spill. Even where the locomotive consist is not derailed in the initial collision with the highway vehicle, application of the train's emergency brake can result in derailment and harm to persons and property along the right-of-way.

Law-abiding motorists can also be endangered in crossing collisions. On March 17, 1993, an Amtrak train collided with a tanker truck in Fort Lauderdale, Florida. Five people died when 8,500 gallons of burning fuel from the tanker truck engulfed cars waiting behind the crossing gates.

Highway passengers can also be victims. On December 14, 1995, in Ponchatoula, Louisiana, five people were killed when their truck was hit by an Amtrak train. Among the dead were three children who were passengers in the truck.

In making a decision on the use of locomotive horns, all of the competing interests must be reasonably considered. Those whose interests will be affected by this rule include those who may be disturbed by the sounding of locomotive horns and all of those who may suffer in the event of a collision: pedestrians using the crossing, the motor vehicle driver and passengers, those in adjacent vehicles, train crews, and those living or working nearby.

## 3. FRA's Study of the Florida Train Whistle Ban

Effective July 1, 1984, Florida authorized local governments to ban the nighttime use of whistles by intrastate trains approaching highway-rail grade crossings equipped with flashing lights, bells, crossing gates, and highway signs that warned motorists that train whistles would not be sounded at night. Fla. Stat. section 351.03(4)(a) (1984). After enactment of this Florida law, many local jurisdictions passed whistle ban ordinances.