

five-year period, only seven percent of the more severe casualties would have occurred in communities that would not have had to implement safety measures.

The following table presents the distribution of crossings, collisions, and resulting casualties. The first data column presents the number of crossings that would have fallen into each quiet zone category on January 1,

1995. The second data column presents the number of relevant collisions (those that FRA believes could have been prevented by sounding the train horn) that occurred in the five-year period that would have followed implementation of the rule. The next two columns present the resulting casualties (fatalities and injuries combined).

As is more fully developed below, the CCRI refers to the Crossing Corridor Risk Index (the average risk for crossings in a potential quiet zone) and the NSRT refers to the Nationwide Significant Risk Threshold (which is the average risk at gated train horn crossings).

	January 1995	January 1, 1996 through December 31, 2000		
	Crossings in WBJs	Relevant collisions	Casualties	Casualties excluding injuries where max train speed < 25 mph
CCRI > NSRT with relevant collisions	865 (36%)	208 (59%)	109 (64%)	94 (78%)
CCRI > 2 * NSRT (no collisions 2000–2005)	72 (3%)	10 (3%)	8 (5%)	8 (7%)
CCRI Between NSRT & 2 * NSRT (no collisions 2000–2005)	236 (10%)	24 (7%)	16 (9%)	10 (8%)
CCRI < NSRT	1,242 (51%)	113 (32%)	36 (21%)	9 (7%)
Total	2,415 (100%)	355 (100%)	169 (100%)	121 (100%)

Therefore, FRA concluded that use of a methodology that compares the known risk in a current or prospective quiet zone to the average risk level at crossings across the nation where train horns are sounded (the Nationwide Significant Risk Threshold) provides a very rational basis for determining where silencing the train horn presents a significant risk. Moreover, FRA concluded that considering an existing whistle ban's actual accident history in that methodology (by making greater allowances for accident-free jurisdictions) provides an even better approximation of risk than does simple reliance on comparing the quiet zone's projected risk level with the Nationwide Significant Risk Threshold.

Subsequent to completion of this validation effort, FRA determined that a number of the crossings previously identified as being in "no whistle" status in the Chicago Region should, in fact, be removed from that list based on elections (largely by freight railroads) to sound the horn. FRA has not repeated this analysis with the smaller data set because (1) its purpose was to determine the usefulness of the method to sort corridors with greater risk from those with lesser risk and (2) whether train horns are sounded at the crossings in question is not critical to the analysis (particularly since the counter measures involved are equally useful at both categories of crossings).

D. Alternatives Considered

FRA considered several other alternatives in determining how to craft exceptions to train horn use. In reviewing the comments on the NPRM and Draft Environmental Impact Statement, FRA identified five additional alternatives for determining where train horns must sound. All of these alternatives involve the same basic environmental effects and benefits of this interim final rule: wherever the train horn sounds, the noise impacts and safety benefits will be the same; wherever the train horn is silenced, the benefits in terms of noise reduction will be the same and the same safety risks will be presented unless compensated by the addition of gates and lights, SSMs, or ASMs. Upon examination, FRA concluded that these alternatives are not reasonable options given the agency's purpose and need for the action and dismissed them from further consideration. These alternatives are described below.

No Exceptions

This alternative would implement the non-discretionary command of the statute by requiring trains horns to be sounded at all public highway-rail grade crossings. This would be what the statute would require if FRA were unable to devise a workable means of providing for quiet zones that satisfies the statute. FRA would set a maximum sound level for locomotive horns.

Changes from the NPRM provisions related to the actual sounding of the horn and maximum sound levels could be accommodated within this option.

Advantages: This option has the advantage of simplicity. It would result in a high level of safety at highway-rail crossings, and the costs of administration would be negligible.

Disadvantages: This approach is not responsive to the statutory command to consider the interests of communities with existing train horn bans because FRA can devise a regulatory regime permitting communities to reduce noise by substituting other safety measures for the sounding of train horns and this option fails to address the issue. Aside from the statutory command, providing a means for communities to quiet train horns has been urged on FRA by the great majority of commenters and their elected representatives (including many who supported the proposed rule as a good means of achieving community quiet and safety). It is simply untenable to say that the final rule should provide no alternative to a high noise load for communities on rail lines with high train counts. Taking this course would also create unnecessary conflict between commuter rail service and the communities served, potentially compromising this important element of a balanced transportation system in many major metropolitan areas.

Had this alternative not been eliminated on statutory grounds, the environmental effects of this alternative