

GAO Highlights

Highlights of [GAO-18-97](#), a report to congressional addressees

Why GAO Did This Study

Accidents at grade crossings are a major source of fatalities in the railroad industry. FRA—the federal agency responsible for providing regulatory oversight of grade-crossing safety—issued regulations on the use of train horns in 2005. Railroads generally support sounding the horn, whereas, communities often support quiet zones to reduce noise.

Congress included a provision in statute for GAO to examine FRA's train horn regulations, including those on quiet zones. Among other things, this report: (1) describes benefits and costs of quiet zones, and (2) examines how FRA evaluates the effectiveness of its train horn regulations. GAO analyzed FRA's documentation on quiet zones, including FRA's train horn regulations and 2011 and 2013 studies on quiet zone safety; reviewed literature; and interviewed FRA program officials in headquarters, Grade Crossing Managers in FRA's 8 regions, and a nongeneralizable sample of another 32 stakeholders from 6 states, railroads, public authorities, and private industry consulting firms. State and public authorities were selected based on the number of quiet zones, geographic diversity, and FRA's recommendations.

What GAO Recommends

GAO recommends that FRA: (1) revise its methodology for analyzing the safety of quiet zones, and (2) develop guidance on conducting quiet zone inspections. The Department of Transportation partially concurred with the first recommendation, saying it would consider it, and fully concurred with the second. GAO continues to believe changes to the methodology are needed, as discussed in the report.

View [GAO-18-97](#). For more information, contact Susan Fleming at (202) 512-2834 or flemings@gao.gov.

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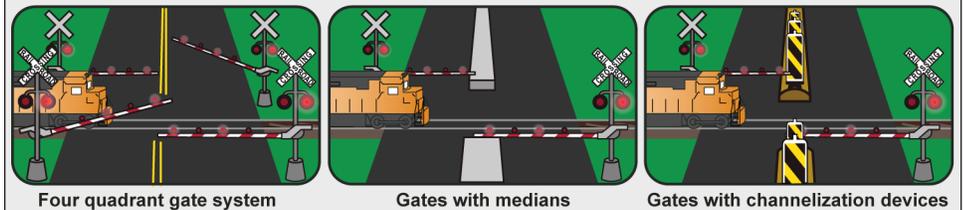
RAILROAD SAFETY

Quiet Zone Analyses and Inspections Could Be Improved

What GAO Found

GAO found that the benefits of quiet zones—i.e., highway-rail at-grade crossings (grade crossings) where train horns are not sounded—have not been quantified and that the costs to establish quiet zones vary. The Federal Railroad Administration's (FRA) train horn regulations allow public authorities (e.g., cities or towns) the opportunity to establish quiet zones if they install safety measures that reduce risks associated with the absence of the train horn (see fig.). While GAO did not identify any research that has quantified the benefits of quiet zones, most stakeholders GAO interviewed said that these quiet zones provide benefits to communities, such as reducing noise or increasing economic development. According to FRA guidance, the factors that affect the costs to establish quiet zones can vary based on the number of grade crossings and types of safety measures used. Public authorities, which typically incur the costs and receive the benefits of quiet zones, must therefore decide whether the benefits of quiet zones exceed the costs.

Examples of the Federal Railroad Administration's Approved Quiet Zone Safety Measures



Source: GAO. | GAO-18-97

To evaluate the effectiveness of its train horn regulations, FRA has analyzed data on grade crossings in quiet zones and is transitioning to a formal process for inspecting quiet zones.

- **Analyses:** FRA's analyses showed grade crossings in quiet zones were generally as safe as they were when train horns were sounded. However, these analyses did not control for changes to grade crossings' characteristics over time—e.g., train speeds or frequency. Such changes may decrease the analyses' reliability. A revised methodology that accounts for these changes could provide FRA with better information on the long-term effects of the train horn regulations, including the safety of quiet zones.
- **Inspections:** Recognizing the need for additional oversight, FRA has taken steps to formalize its process for inspecting quiet zones. FRA has primarily relied on public authorities to oversee quiet zones and ensure compliance with the train horn regulations, in addition to informal inspections by FRA's Grade Crossing Managers. In September 2017, FRA began conducting formal inspections of quiet zones using Grade Crossing Inspectors. However, FRA has not developed guidance for how inspections are to be conducted, including how frequently inspections are to be performed or what should be examined. Without guidance, FRA cannot ensure that inspections are being conducted consistently across FRA's eight regions.