



**M O V I N G   T H E**  
**AMERICAN**  
**ECONOMY**

***Federal Railroad Administration***  
***Trains Blocking Highway-Rail Grade Crossings***  
***Fact Sheet***

## **Background on Blocked Crossings**

There are approximately 228,000 public and private highway-rail grade crossings across the American landscape. In many parts of the country, communities evolved and purposefully developed alongside rail lines that connected them to other communities, regional markets and the national economy. As a result, railroad tracks providing both freight and passenger rail service often run right through the center of major cities, suburban areas, and small towns.

The increased frequency of blocked grade crossings is a result, in part, of more trains being consolidated on fewer main lines and may adversely affect the quality of life especially if a high number of freight and passenger trains use the line during peak highway travel times.

In addition, a grade crossing blocked by a stopped or slow moving train may impede the movement of emergency response vehicles, negatively impact the flow of commerce, and be an inducement for motorists to violate traffic safety laws or pedestrians to trespass.

The expected growth in both rail and highway traffic in the coming years ensures that blocked crossings will continue to be a persistent challenge, but one to which solutions are available.

## **The Role of FRA**

The Federal Railroad Administration (FRA) does not regulate the length of time a train may block a grade crossing. A federal law or regulation limiting the amount of time a grade crossing may be blocked could have the undesirable effect of causing a railroad to violate other federal safety rules such as when a train must be stopped in order to comply with regulations requiring that air brake tests be performed.

However, FRA rail safety rules do address standing (idling) trains that unnecessarily activate grade crossing warning devices such as flashing lights and gate arms. The federal rule specifically prohibits standing trains, locomotives, or other rail equipment from activating warning devices unless it is part of normal train movements or switching operations. As such, the rule makes clear that the reality of railroad operations sometimes require that trains stop in the approach circuits that activate warning devices even though the train is not occupying the crossing itself.

## **The Role of Railroads**

FRA encourages railroads to be responsible corporate citizens. In order to maintain good community and customer relations, FRA recommends that railroads work cooperatively with state and local officials to eliminate or minimize the impact of blocked crossings wherever possible. For example, a railroad might make operational changes such as the time of day it services its customers or where it stops its trains to make crew changes. A railroad may also participate in a

public-private partnership by investing in grade crossing improvements particularly when the improvement has a positive business benefit or increases the efficiency of rail operations.

## **The Role of States**

The Uniform Vehicle Code (UVC) is a comprehensive guide designed to help states develop standard motor vehicle and traffic safety laws. The UVC suggests that trains not block crossings for more than five minutes, except under special circumstances (e.g., if a train is disabled; or if no vehicular traffic is waiting to use the crossing; or if it is necessary to comply with signals affecting the safe movement of trains). However, the UVC is not binding and some states do not subscribe to its suggested rules and regulations, or they enact laws that omit key provisions or include obviously impractical requirements.

The majority of states place some restrictions on the amount of time a highway-rail crossing can be blocked, but in no case does it exceed more than twenty minutes, although several provide an exception for emergencies or circumstances beyond the control of the railroad. In addition, some states impose fines that range from a token amount to a few thousand dollars for each occurrence.

The division of responsibility for grade crossings also varies among the states. For some, it is divided between several public agencies and the railroad. In other states, jurisdiction is assigned to regulatory agencies such as public utility commissions, public service commissions, or state corporation commissions. Still other states split the authority among state, county, and city governmental agencies that have jurisdiction and responsibility for their respective highway systems. For more information, see the FRA publication entitled [\*Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings\*](#).

And, the issue of a state's authority to legislate or regulate blocked crossings is highly contentious and still being defined in the courts. Railroads have on occasion mounted "pre-emption" defenses, citing FRA regulations and other federal requirements which they believe take precedence over state laws or local ordinances. Where there is a conflict between the state law and federal rail safety requirements, the courts have found the state law to be pre-empted and, thus, unenforceable.

In addition, states play an important role in determining which grade crossings receive state and federal funding support for safety improvements or other upgrades that may help alleviate the impact of a blocked grade crossing or eliminate the crossing altogether.

## **Blocked Crossings and Emergency Response**

In September 2006, the FRA issued a report entitled [\*Impact of Blocked Crossings on Emergency Response Services\*](#). Anecdotal reports of problems resulting from delays in emergency response due to blocked highway-railroad crossings were reviewed. However, it is not possible to estimate the precise costs or impacts of such delays nationally or locally without obtaining much more detailed information from communities than is presently available.

The impact of blocked crossings on communities from delayed emergency response, while sometimes severe, are considered to be less than their impact on traffic delays and congestion. Another way to look at it would be to say that in places where blocked crossings are considered to be a recurring problem – to traffic, safety and emergency response – emergency response delays

may help to justify a grade separation or other major expenditure, but such delays by themselves are unlikely to justify major mitigation measures except in special cases.

## **Solutions to Blocked Crossings**

There are a number of actions which communities and railroads might take to eliminate or ameliorate problems from blocked crossings. In addressing a blocked crossing issue, a community should always consult and strive to work closely with the railroad, since in many cases a solution based solely on actions by the railroad may be the most cost-effective and expedient.

### ***Potential operational changes that a railroad might make include:***

- Hold a train outside the congested area until it can move through the grade crossing without stopping;
- Improve management of rail yard traffic to accommodate train movements more efficiently;
- Work with customers to schedule pick-up and delivery times that limit impact on highway traffic;
- Reduce the length of trains;
- Relocate where a train stops for a crew change; and
- ‘Break’ a long train (i.e., de-couple two rail cars) to allow the resumption of highway traffic when it is anticipated that a grade crossing will be blocked for an extended period.

### ***Potential mitigation strategies for chronic grade crossing blockages include:***

- Use private and/or public investments to:
  - Add tracks, lengthen sidings, or make other rail infrastructure improvements;
  - Create grade separations where the highway is located above or below the tracks;
  - Close and consolidate grade crossings to mitigate congestion and improve traffic flow; and
  - Relocate a rail line to a completely new right-of-way.
- Develop and deploy technology such as:
  - Positive Train Control with GPS to precisely locate and better plan train movements;
  - Electronically Controlled Pneumatic brakes to reduce the frequency of, and the time it takes to perform, federally required air brake tests; and
  - Intelligent Transportation Systems to provide advance warning of blocked grade crossings to motorists and emergency responders and to recommend possible alternate routes.
- Improve communication between, and provide training for, railroads, local communities, state agencies and emergency responders; and
- Ensure that local governments formally consider the potential for new residential or commercial development to generate more highway traffic and how such developments may impact grade crossing use, safety and emergency response.

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May 2008**