



# **The Economic and Social Impact of Railroad Incidents: Prevent Tragedy on the Tracks**

**“Safety is Good Business”**

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# Overview

- Rail Incident Facts
- Metra Overview
- Single Grade Crossing Incident
- Metra Projects

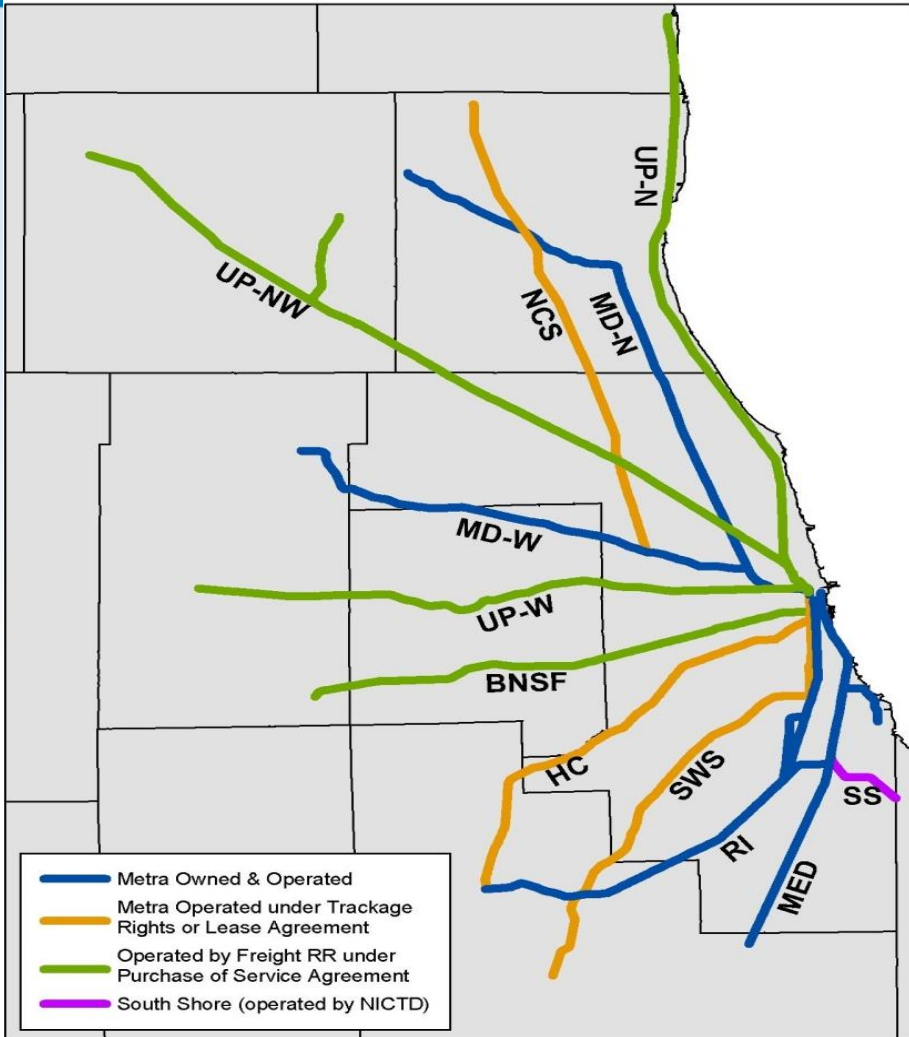
## Rail Crossing and Trespassing Facts

- In the US, every 115 minutes someone is hit by a train resulting in a serious injury or death.
- The FRA Railroad Safety Statistics reported 257 fatalities and 853 non-fatalities for highway rail incidents (2010).
- Operation Lifesaver reported that highway rail crossing and trespasser deaths account for 95% of all rail-related deaths (2014).

# Infrastructure

## Freight/Passenger Operations Sharing the Same Track

- Rail Lines – 11
- Service Area – 540 Square Mile
- Track Miles – 1,200
- Route Miles – 488
- Road Grade Crossings – 574
- Bridges – 814
- Stations – 241



# Operation

## Five Major Downtown Terminals

- Ogilvie Transportation Center
- LaSalle Street Station
- Chicago Union Station
- Millennium Station
- Van Buren Street Station

## Outlying Stations

241 Stations serving  
110 communities

## Serving

300,000 Passengers Daily

## Operating

703 Trains a day  
(296 Saturday trains & 163 Sunday trains)



# Railroads – Freight, Passenger & Commuter

## Tenant Railroads

- Amtrak
- Norfolk Southern
- Union Pacific
- Canadian Pacific Railroad\*
- Wisconsin and Southern Railroad
- DM&E
- Northern Indiana Commuter Transportation District (NICTD)
- Canadian National
- CSX
- Iowa Interstate
- Chicago Rail Link

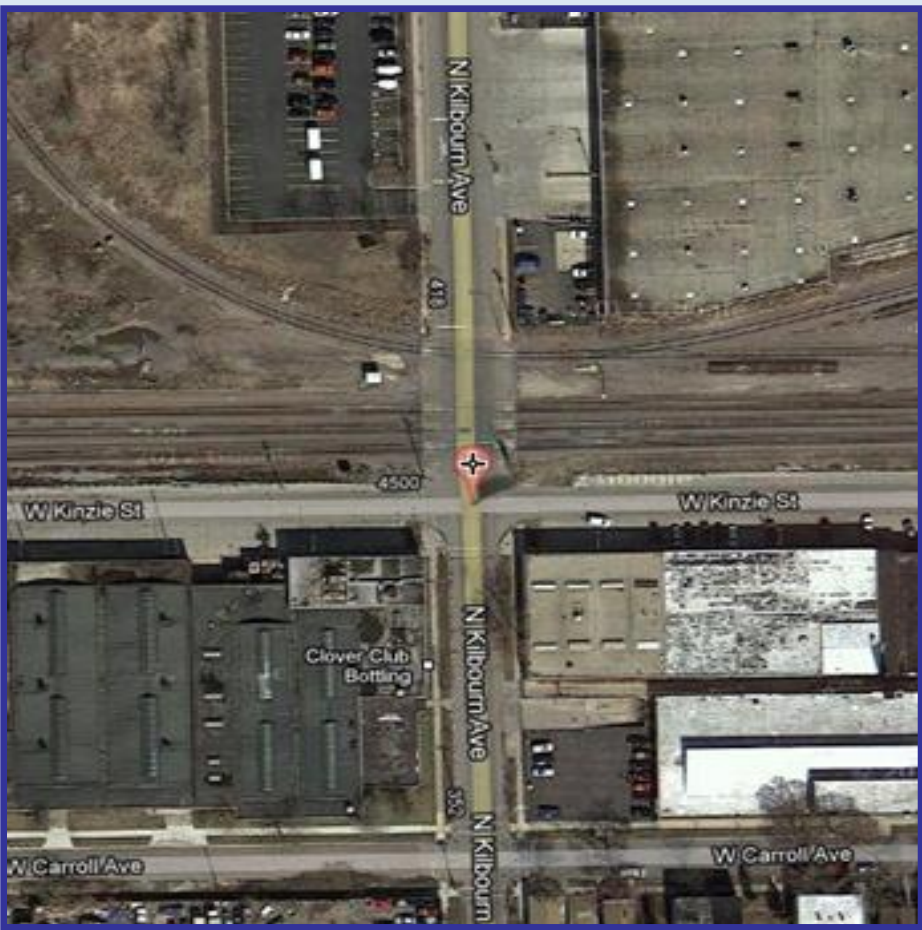
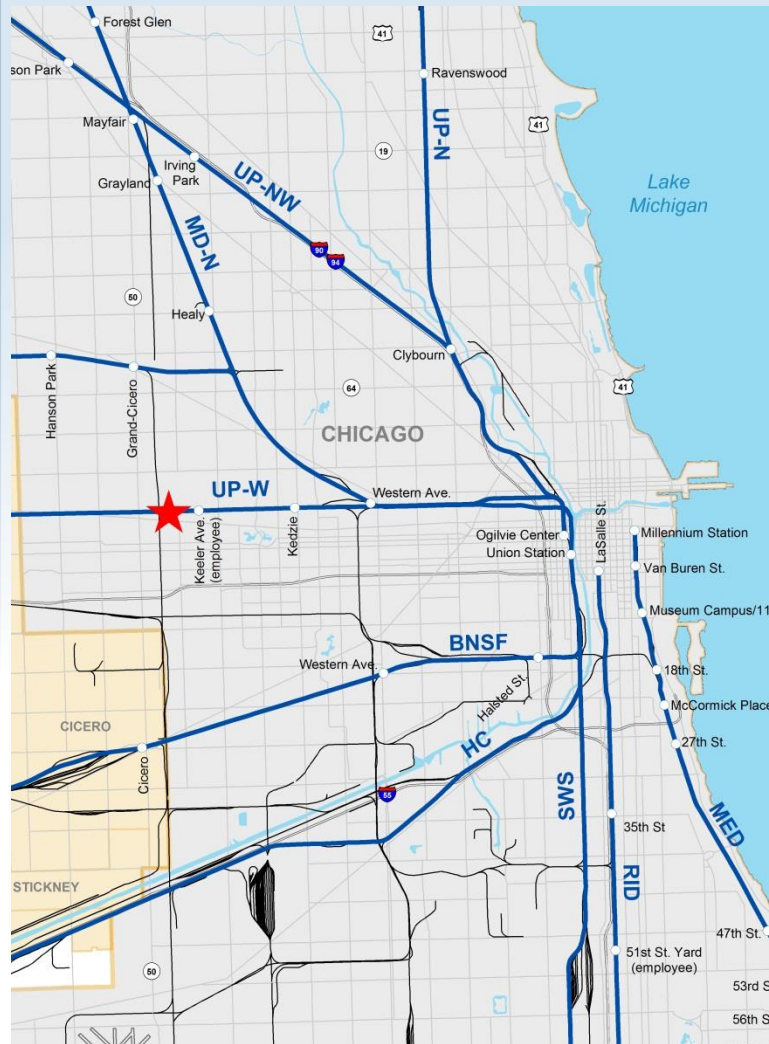
## Host Railroads

- Union Pacific
- Canadian National
- BNSF Railway
- Amtrak
- Canadian Pacific Railroad\*

\* CPR dispatches MD-N and MD-W

# Single Grade Crossing Incident

## Kilbourn Avenue (UP-W) Crossing Incident 6/28/06



# Kilbourn Avenue (UP-W) Crossing Incident 6/28/06

- 3:50 PM** • Union Pacific West Line train #39, operating on Track No. 3, reports striking a semi truck at Mile Post 5.22, Kilbourn Avenue Crossing.
- 4:00 PM** • Metra Police are notified and a Metra Police Officer is dispatched to the scene.
- 4:16 PM** • Metra Police arrive on scene – all tracks are shutdown by Chicago Fire Department.
- 5:15PM** • Track Nos. 1 and 2 are opened for restricted movement by accident scene
- 6:55 PM** • Track No. 3 is re-opened, allowing trains to proceed at maximum authorized speed.
- 9:25 PM** • Train #64 arrives at final destination (Elburn) 39 minutes late (last delay due to incident).



# The delays attributed to this accident are...

- #39 ANNULLED  
975 Passengers
- #41 Delayed 56 Minutes  
1,185 Passengers
- #43 ANNULLED  
250 Passengers
- #45 Delayed 75 Minutes  
971 Passengers
- #47 Delayed 47 Minutes  
1,150 Passengers
- #49 Delayed 60 Minutes  
1,183 Passengers
- #51 Delayed 70 Minutes  
1,169 Passengers
- #53 Delayed 57 minutes  
936 Passengers
- #54 Delayed 38 minutes  
370 Passengers
- #55 Delayed 63 Minutes  
610 Passengers
- #56 Delayed 66 Minutes  
320 Passengers
- #57 Delayed 59 Minutes  
812 Passengers
- #58 ANNULLED  
216 Passengers
- #59 ANNULLED  
280 Passengers
- #60 ANNULLED  
13 Passengers
- #62 Delayed 69 Minutes  
195 Passengers
- #64 Delayed 39 Minutes  
1 Passenger

**Total number of passengers impacted: 10,600**

# Meanwhile Downtown....

Over 10,000 passengers on 17 trains were delayed. Because this incident involved injuries, the investigation was more extensive and time consuming, resulting in maximum delays of 1 hour and 15 minutes.



# Impacts – On Board

- **Child Care and Evening Commitments** - Passengers address issues such as child care, child retrieval from day care and evening commitments. Many passengers' schedules require them to pick up children by a specific time.
- **Self Evacuation** - As delays progress, the incident transitions from an inconvenience to a potentially dangerous situation as some attempt to detrain onto the railroad right-of-way even though it is not safe to do so. As the number of trains that are stopped grows, this is particularly hazardous in multi-track areas.
- **Medical Illness** - During long delays, we have had some passengers experience medical problems due to illness brought on by stress or by illnesses which require time sensitive medication

## Impacts - On Communities

- **Blocked Crossings** - Communities along the train line experience blocked crossings which may impede emergency equipment dispatched for the original incident or others.
- **Traffic Congestion** - Traffic congestion in areas around stations and crossings will result in increased police response for traffic management.
- **Increased Dangers** – Increased traffic congestion and blocked crossings create situations which entice pedestrians to cross while the gates are down for long periods of time which creates additional hazards.

# NCHRP Report 755



# Breakdown of Grade Crossing Collision Cost Components

Effect	Impact	Cost Component
Primary	Direct	<ul style="list-style-type: none"> <li>Property Damage (Highway vehicles, railroad equipment, and infrastructure).</li> <li>Other direct costs, (e.g. EMS, Insurance)</li> </ul>
	Indirect	<ul style="list-style-type: none"> <li>Work related productivity loss</li> <li>Tax loss</li> </ul>
	Intangible	<ul style="list-style-type: none"> <li>Quality of life</li> <li>Pain and suffering</li> <li>Environmental cost</li> </ul>
Secondary	Supply Chain and Business Disruption	<ul style="list-style-type: none"> <li>Rerouting costs</li> <li>Lost sales</li> <li>Prevention costs</li> <li>Inventory spoilage</li> <li>Freight and passenger delays</li> <li>Freight and passenger reliability</li> <li>Increased inventory</li> </ul>

# The Need For Engineering Safety Enhancements



# Belmont Road Grade Separation





# Belmont Road Grade Separation



# Lombard Crossing



# Pedestrian Underpasses

Tinley Park, 80<sup>th</sup> Ave.



Lombard





**Questions?**