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

“Safety is Good Business”

August 4, 2014
presented at the GLXS 2014

Presented by:
Hilary Konczal, Director of Safety
(O) 312-322-6743
Hkonczal@metrarr.com
Overview

- Rail Incident Facts
- Metra Overview
- Single Grade Crossing Incident
- Metra Projects
• 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).
Metra Overview

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)
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

[Map of the area with a marked crossing point and an aerial image of the location]
• Union Pacific West Line train #39, operating on Track No. 3, reports striking a semi truck at Mile Post 5.22, Kilbourn Avenue Crossing.

• Metra Police are notified and a Metra Police Officer is dispatched to the scene.

• Metra Police arrive on scene – all tracks are shutdown by Chicago Fire Department.

• Track Nos. 1 and 2 are opened for restricted movement by accident scene

• Track No. 3 is re-opened, allowing trains to proceed at maximum authorized speed.

• Train #64 arrives at final destination (Elburn) 39 minutes late (last delay due to incident).
## Single Grade Crossing 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.
• **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.
# Breakdown of Grade Crossing Collision Cost Components

<table>
<thead>
<tr>
<th>Effect</th>
<th>Impact</th>
<th>Cost Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Direct</td>
<td>• Property Damage (Highway vehicles, railroad equipment, and infrastructure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Other direct costs, (e.g. EMS, Insurance)</td>
</tr>
<tr>
<td></td>
<td>Indirect</td>
<td>• Work related productivity loss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tax loss</td>
</tr>
<tr>
<td></td>
<td>Intangible</td>
<td>• Quality of life</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pain and suffering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Environmental cost</td>
</tr>
<tr>
<td>Secondary</td>
<td>Supply Chain and Business Disruption</td>
<td>• Rerouting costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lost sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prevention costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inventory spoilage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Freight and passenger delays</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Freight and passenger reliability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased inventory</td>
</tr>
</tbody>
</table>
The Need For Engineering Safety Enhancements
Belmont Road Grade Separation
Lombard Crossing
Pedestrian Underpasses

Tinley Park, 80th Ave.  

Lombard
Questions?