

# "Ghost Train" Causes Head-On Collision in Chicago

## 1 Problem

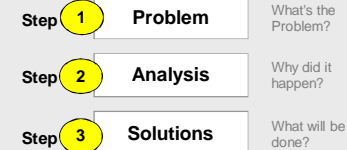
<b>What</b>	Problem(s)	Train collision, 30 people injured
<b>When</b>	Date	September 30, 2013
	Time	7:42 a.m.
<b>Where</b>	Different, unusual, unique	One train was unoccupied
	Facility, site	Harlem Station on the CTA Blue Line
	Task being performed	One train in normal service
<b>Impact to the Goals</b>	<b>Safety</b>	30 injured
	<b>Customer Service</b>	Negative publicity for the train system
	<b>Production/ Schedule</b>	Service on Blue Line temporarily suspended
	<b>Property/ Equipment</b>	Two train cars significantly damaged
	<b>Labor/ Time</b>	Investigation/ clean-up required

On September 30, 2013, an unoccupied train collided head-on with another train sending 30 people to the hospital in Chicago. In a nod to the season and the bizarre circumstances of the accident, the unoccupied train has been colorfully dubbed "the ghost train".

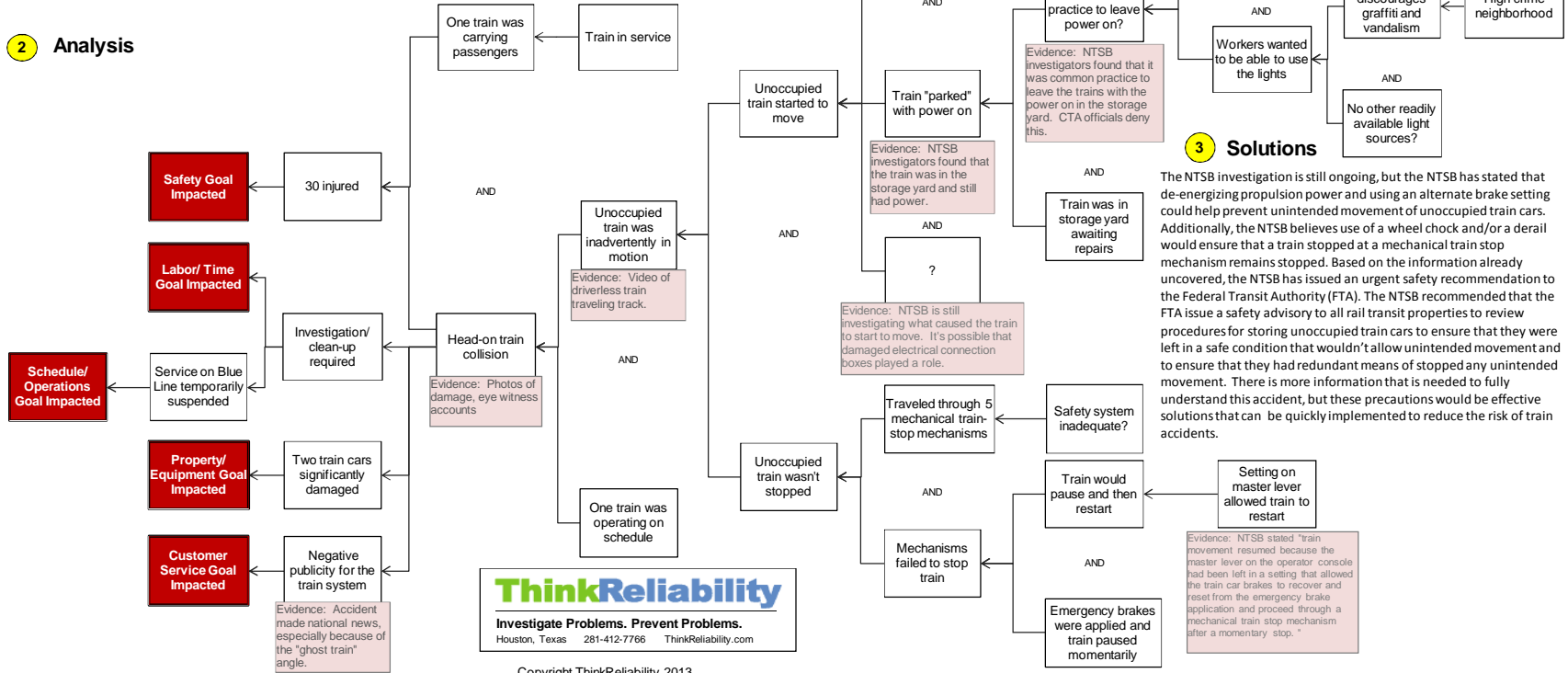
Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

## CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis



## 2 Analysis



## 3 Solutions

The NTSB investigation is still ongoing, but the NTSB has stated that de-energizing propulsion power and using an alternate brake setting could help prevent unintended movement of unoccupied train cars. Additionally, the NTSB believes use of a wheel chock and/or a derail would ensure that a train stopped at a mechanical train stop mechanism remains stopped. Based on the information already uncovered, the NTSB has issued an urgent safety recommendation to the Federal Transit Authority (FTA). The NTSB recommended that the FTA issue a safety advisory to all rail transit properties to review procedures for storing unoccupied train cars to ensure that they were left in a safe condition that wouldn't allow unintended movement and to ensure that they had redundant means of stopped any unintended movement. There is more information that is needed to fully understand this accident, but these precautions would be effective solutions that can be quickly implemented to reduce the risk of train accidents.

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