

THE SANDWICH FAULT ZONE OF NORTHERN ILLINOIS

The Sandwich Fault Zone extends northwesterly from near Manhattan, Will County to Near Oregon, Ogle County, a distance of about 85 miles long and about 8 to 12 mile southwest of Rochelle. Drillings and studies suggest the fault is about 2 miles wide and up thrown to the south throughout most of its extent with a maximum cumulative displacement of about 800 feet at its midpoint in southwestern DeKalb County and a down thrust in Will county of 150 feet.

The Fault is located in a structurally complex area near the termination of three major positive features. Like a large slice in the sub structure, the glacial drift, rich soil, is as much as 500 feet deep in buried river valleys with bedrock below, in Northeast DeKalb County and northwest Kendall. Low relief characterizes the topography of the Sandwich Fault Zone, meaning you don't see much at the surface.

The New Mandarin fault is south of us near St. Louis and produced 3 or the most powerful quakes in North America, 8.1, 7.8 and 8.8 over 200 years ago. But like Mt. St. Helen, you never know when Mother Nature will strike. In 2010, there were 120 quakes with a magnitude of 6 or greater. In 2011 the earth experienced over 180 of them. Small quakes are releasing pressure all the time. Those are the good one for people but not for train tracks.

I believe Class 1 Tracks require continuous welds along the tracks, but with mild tremors, constant movement from heavy loads and the freeze/thaw movement of the ground, how safe are those welds?

In an article published by *Scientific American* on May 13, 2015 by Abigail Tracy and Tal Reznik, "Broken Rails are the Leading Cause of Train Derailments" Between 2001 and 2010, there were 58,299 accidents, 94% ... 54, 889 were from train derailments; 15.3% were caused by broken welds or rails and 7.3% were from track geometry. Having a fast moving freight train passing through rural small towns and larger cities with dense populations is a scary thought.

On June 19, 2009 and train derailed in Cherry Valley, 13 cars carrying denatured fuel ethanol exploded in flames killing a car passenger waiting at the down gate, 2 were severely burned. 5 more injured and 2 firefighters received minor burns. A wash out and broken rail was to blame. Ethanol was released and 600 people in a ½ mile area were evacuated. Reports show the track was found to be unsafe an hour before the train passed but the engineer was not notified.

Where can we call to get HAZMAT response? How long will it take for them to get to the accident? Is this the price citizens will pay to move freight faster through Chicago? Mr. Patton needs to rethink his estimate of time and realize there are human lives at stake. Speed for profit is not progress.

Thank You,
Toria Funderburg,
Belvidere, IL

Broken Rails Are Leading Cause of Train Derailments May 13, 2015

The cause of the Amtrak derailment in Philadelphia is under investigation, but broken rails and welds are more than twice as likely to cause train derailments than any other reason

- By [Abigail Tracy](#), [Tal Reznik](#),



Broken rails and welds were more than twice as likely to have been the cause of train derailments than the second and third leading causes—track geometry and bearing failure.

Credit: [Barry Solow/Flickr](#)

A massive derailment of an Amtrak train in Philadelphia [claimed the lives of at least six people and injured another 140 people](#) on Tuesday night, just one of a handful of fatal train accidents this year. Derailments are by and large the leading cause of train crashes in the United States. Between 2001 and 2010, of the 58,299 train accidents that occurred, 54,889 were train derailments. That's a staggering 94 percent.

Officials have not yet determined the cause of last night's Amtrak crash, but historically, broken rails and welds are [the most common cause](#) of train derailments. They account for more than 15 percent of derailments, according to data from the Federal Railroad Administration.

Broken rails and welds were more than twice as likely to have been the cause of train derailments than the second and third leading causes—track geometry and bearing failure. Track geometry, which includes such things as train alignment, gauge and elevation, was responsible for 7.3 percent of derailments and bearing failure was responsible for 5.9 percent.

Carrying 238 passengers and five crew members, the Northeast Regional Train 188 was bound for New York City when it crashed at 9:30pm in the Port Richmond region of the Pennsylvania city. Six of the train's seven cars overturned in the accident, and while the majority of passengers were able to walk away from the accident, 65 people were taken to nearby hospitals.

Between 2005 and 2014, Amtrak had the second highest number of reported accidents and incidents, outstripped only by the Union Pacific Railroad company. Over the period, 20,703 accidents involved Union Pacific trains compared to the 18,460 that involved Amtrak trains. The two railroads accounted for 16.3 percent and 14.6 percent of all train accidents between 2005 and 2014.

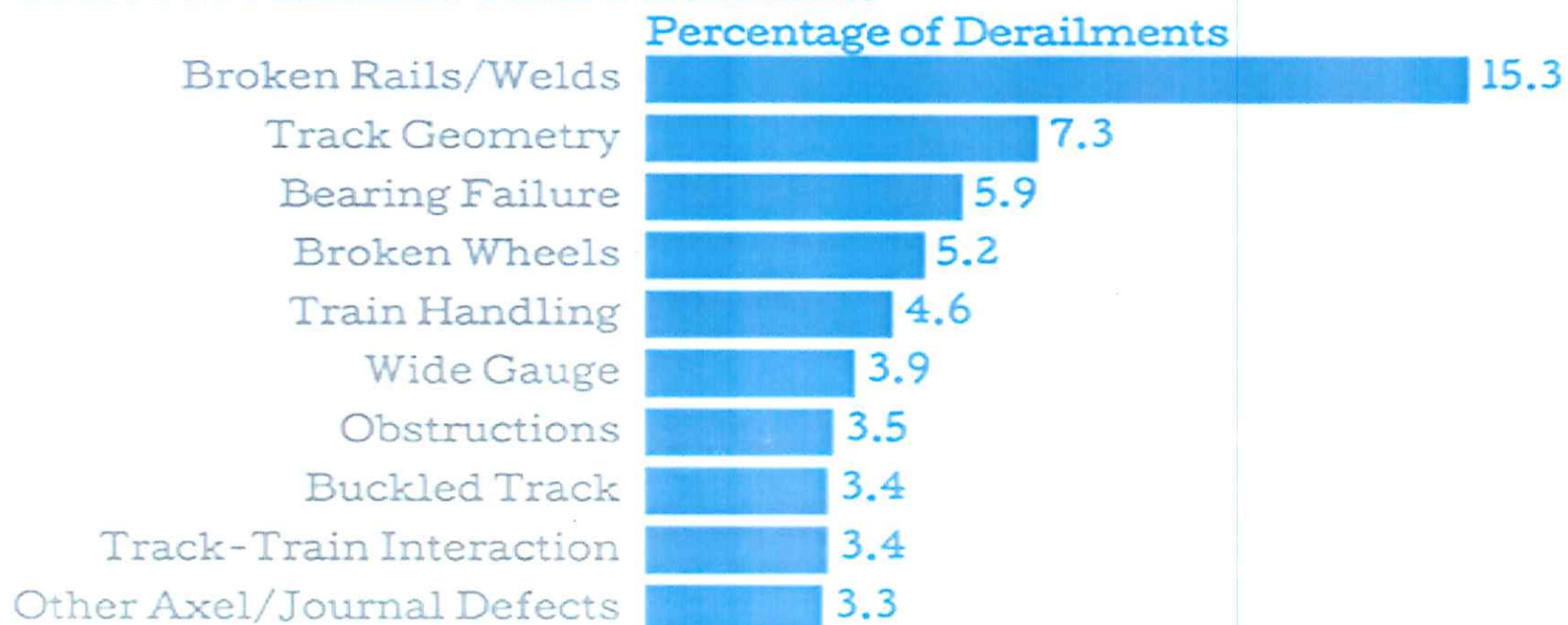
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It is important to note, however, that both of these railroads run trains much more frequently, so while the number of accidents is higher than others, that is not necessarily reflective of the general safety of the railroads.

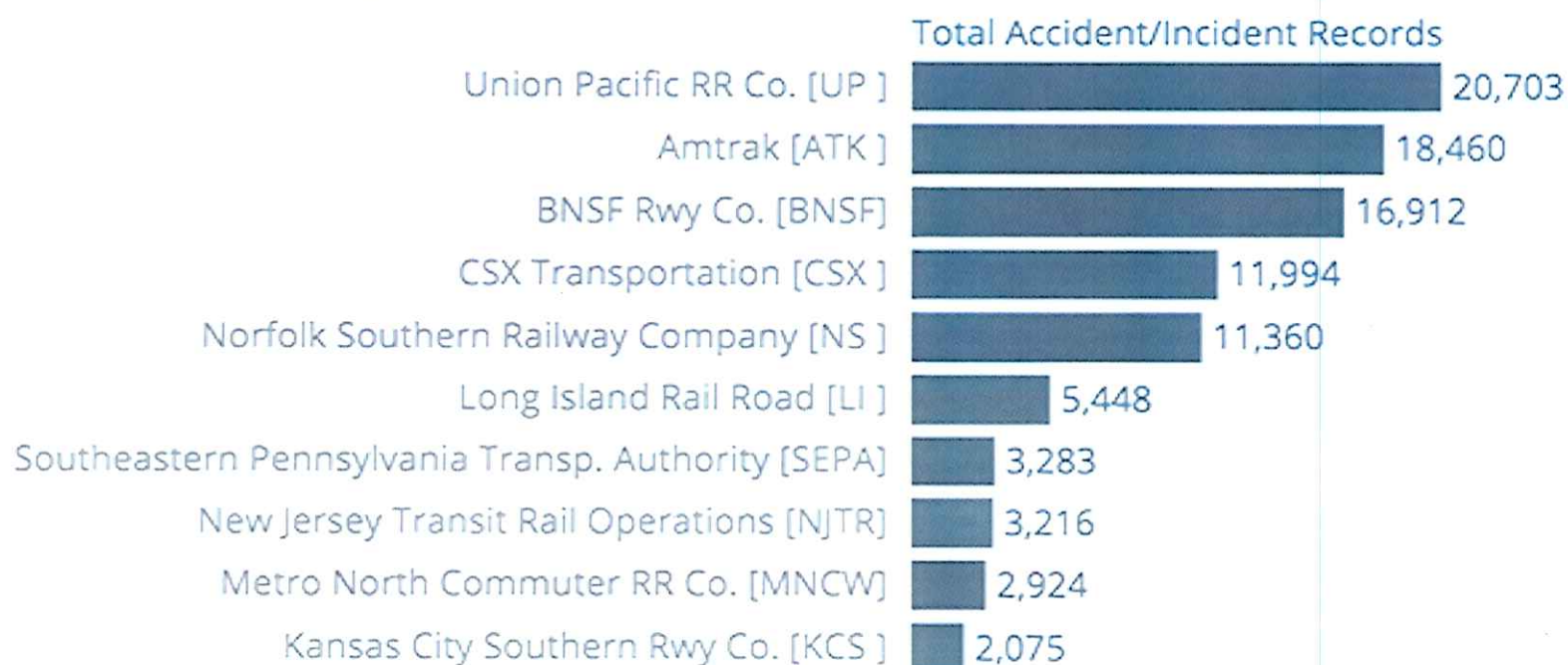
Causes Of Main Line Train Derailments



Made with Chartbuilder

Data: Federal Railroad Administration

Railroads With The Highest Number Of Accidents



Vocativ

Data: Federal Railroad Administration

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