Safety—Not an Option it is an Imperative

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SUMMARY

Over the past 30 years the American railroad industry has made tremendous progress in enhancing a safer environment for our employees, customers, and neighbours. The pivotal point was the enactment of the Staggers Rail Act of 1980 that deregulated the industry, afforded the American railroad industry the opportunity to increase their funds in all areas of operations and engineering to include safety. As a result this "quid pro quo" action brought much needed funds to correct and bolster the railroad safety programs resulting in less injuries and accidents. By lessening injuries and accidents the railroads are able to re-invest funds internally and less on repair. Hence, a safe program in not just an option but an imperative in an efficient rail operation.

INTRODUCTION

The main purpose of this paper is to illustrate how the American railroad industry changed since the inception of the Staggers Rail Act of 1980. Prior to the enactment of Staggers the American railroad industry at the brink of extinction with bankruptcies, and a dilapidated infrastructure. After Staggers the noticeable change occurred one the railroads were able to operate profitably thus allowing carriers to re-invest funds back into the system. One area that received the re-investment was in safety by better rolling stock, track maintenance & structure, and programs. Through enhanced safety programs injuries and accidents have fallen tremendously. Thus, a safe operation will benefit not only the employees but the organization.

Safety—Not an Option it is an Imperative

Pursuing safe operations for the American railroad industry is not an option, it is an imperative. Overall good business practices are predicated on safe operating practices. Most importantly, monies spent on outcomes resulting from unsafe conditions could be better spent on reinvesting and improving overall operations. Hence, simply put, **"Safety is Good for Business."** All of the American freight carriers agree that the first order of business is SAFETY and the foundation for our responsibility to our employees, our customers, and our neighbors is to operate safely each and every day.

Unfortunately, in some industries safety is seen as an impediment to doing business, however, this is not the case when it comes to the American freight railroads. The American freight railroads operate with a goal that a safe environment will equate into less accidents and less injuries resulting in less expenditures of these two factors.

> *"Safety is every one's responsibility on the railroad. Accidents and injuries take a huge toll on the physical pain and emotional suffering. Even minor accidents and injuries are a drag on the organization moral, paperwork time and energy. There are simply too many accidents in this industry, too much pain and suffering that could be avoided if we had just followed the rules".*[1] **E. Hunter Harrison (retired) CEO Canadian National**

In fact, 2010 was the safest year ever for railroads, breaking the record set in 2009. From 1980 to 2010, American railroads reduced their train accident rate by 77 percent and their employee injury rate by 82 percent. In over the past 30 years the American freight railroads mark tremendous successes the passage of the Staggers Rail Act of 1980, a watershed piece of legislation that revitalized the nation's railroads and removed a century's worth of excessive regulation.

> *"Freight railroads are a true American success story. Before the Staggers Act was passed, the future looked bleak. Today, freight rail is a driving force in the nation's economy,*

[1] E. Hunter Harrison, *What We Do and Why, (*Montreal, Quebec Canada: Canadian National Railroad 2005, p. 23.

supporting more than a million jobs and keeping American businesses competitive," said ***Edward R. Hamberger, President and CEO of the Association of American Railroads.***

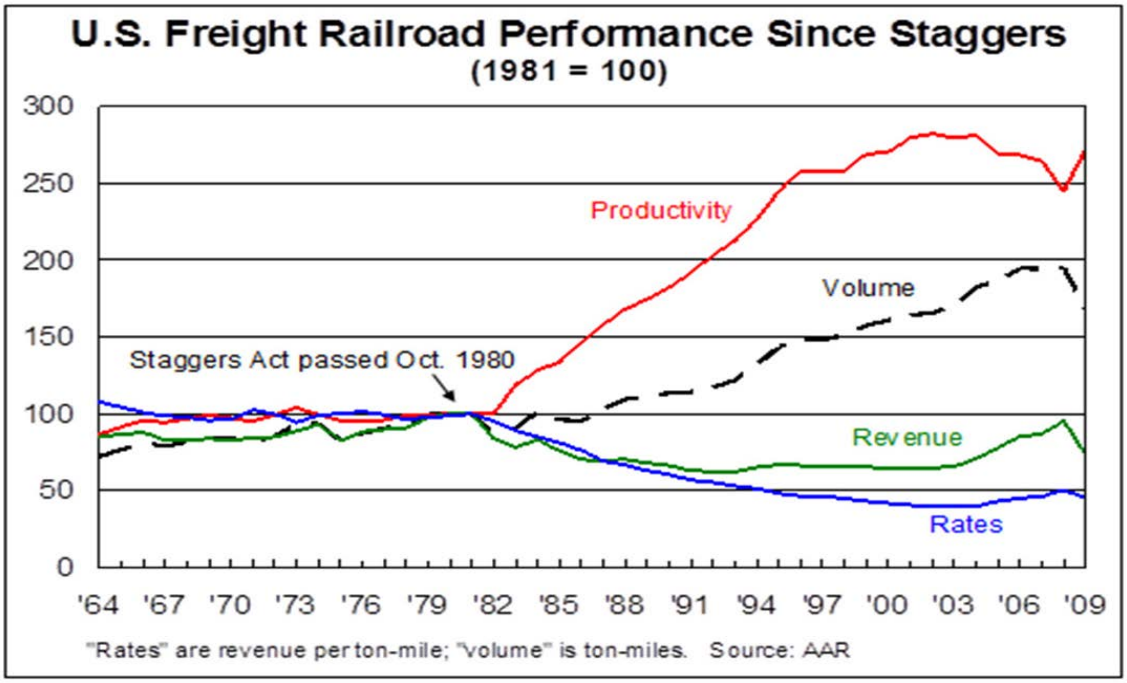

Chart 1

Today, the Staggers Act is credited for improving rail safety and productivity, increasing rail market share, and returning financial stability to an industry. The Staggers Act of 1980 was a pivotal point in American freight rail history as seen in Chart 1.

I for one witnessed the industry prior to 1980 where dilapidated equipment, poorly maintained yards and lack of funding created an atmosphere of breakdowns, standing derailments and injury strewn environment. In fact, in some yards we had to shove cars for interchange for the risk of derailing a locomotive was too great of a possibility due to track conditions. This was a period when government regulations inhibited competition, leaving railroads unable to compete in the marketplace.

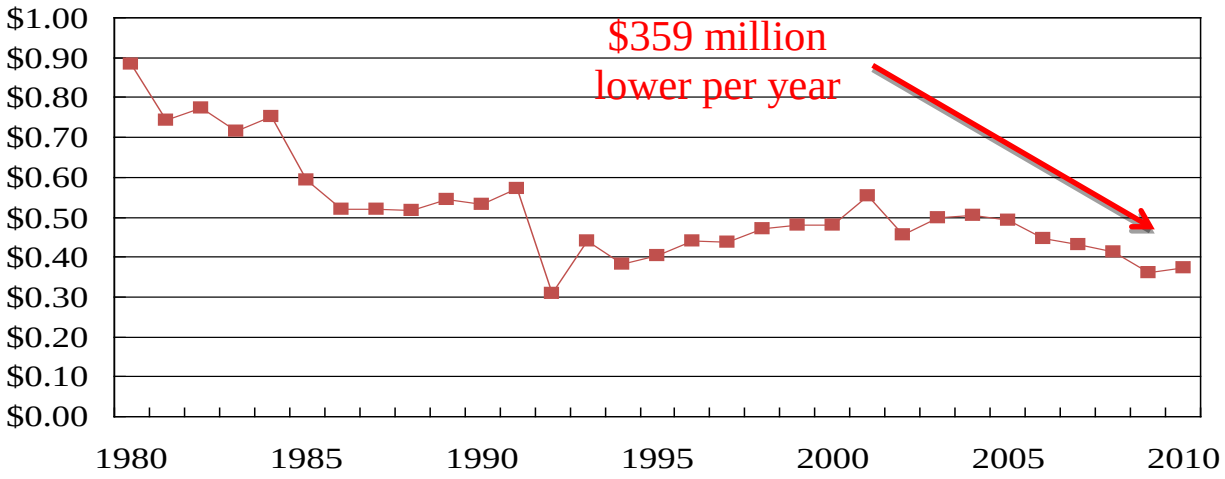

Chart 2—Inflation-adjusted train accident damage costs per train mile[2]

[2] Source: AAR Analysis of FRA Train Accident Database. Note: Includes grade crossing accidents. 2010 dollars using GDP price deflator. 2010 accident damage costs at the 1980 damage cost rate would have been $359 million higher.

After the enactment of the Staggers Act the American freight railroad industry began to make massive investments in safety-enhancing infrastructure, equipment, and technology; extensive employee training; cooperation with labor, suppliers, customers, communities, and the Federal Railroad Administration (FRA).

Unlike trucks, barges and airlines, the American freight railroads operate across infrastructure they built, maintained, grown and owned with private capital. Even during the recent the economic downturn, America's freight railroads continued making significant private investments in building, maintaining and growing the national rail network to include safety programs. In 2010, freight railroads spent a record amount on capital expenditures – approximately $10.7 billion to build and expand their network infrastructure and purchase equipment. Furthermore, all of the major Class I railroads publicly announced planned capital spending programs in 2011 that will be greater than those in 2010. Combined, the major American freight railroads projected capital expenditures of $12 billion in 2011. In fact, the four largest Class I American freight railroads each will spend more on their private rail network infrastructure than most state highway agencies spend on roadways. As a result, we have increased rail traffic, better service, safer operations, lower rates, more investment, more productive operations, and improved railroad financial status. This is all possible in part due to a safer work environment as a result in having the means available to invest back into the industry.

Safety Record

Noted earlier the American freight rail system continues to experience record breaking numbers, in a positive way, in safety. By being able to invest in the industries' safety programs the American freight railroads experience a decrease of:

- **Employee Injuries** –dropped by 82% since 1980 and 42% since 2000, to a new low[3].
- **Train accidents** (per million train-miles)--dropped 77% since 1980 and 36% since 2000.[4]
- **Mainline train collisions** (per million train-miles on Class I freight railroads)--dropped 92% since 1980 and 59% since 2000[5].
- **Derailments** (per million train miles)—dropped 79% since 1980 and 36% since 2000.[6]
- **Human factors accidents** (per million train-miles)—dropped 73% since 1980 and 45% since 2000.[7]

According to U.S. Department of Labor data, the American freight railroads today have lower employee injury rates than other modes of transportation and most other major industry groups, including agriculture, construction, manufacturing, and private industry as a whole.

American freight railroads are proud of their safety record, which results from our recognition of responsibilities regarding safety and the enormous resources we devote to its advancement. At the same time, railroads want rail safety to continue to improve (see Charts 2&3). A healthy balance sheet is essential for a safety program hence, a "quid pro quo" affect where a financially-viable railroad will be in a much better position to invest in safety enhancements than a financially-weak carrier. The record investments by the railroads made in their infrastructure, equipment, and technology in recent years resulting in a much safer work environment.

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[3] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-2, 4-1. FRA Accident/Incident Bulletin, 1980-1996, Tables 13, 36. Note: Casualties include fatalities as well as injuries and occupational illnesses.

[4] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-2, 4-1. FRA Accident/Incident Bulletin, 1980-1996, Tables 13, 36. Note: Casualties include fatalities as well as injuries and occupational illnesses.

[5] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). AAR Analysis of FRA train accident database through 2010 as of March 2011. FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-1, 5-6; FRA, Accident/Incident Bulletin, 1980-1996, Tables 19, 36. Note: Excludes grade crossing collisions.

[6] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-1, 5-6. FRA, Accident/Incident Bulletin, 1980-1996, Tables 19, 36. Note: Excludes grade crossing accidents.

[7] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-1, 5-9. FRA, Accident/Incident Bulletin, 1980-1996, Tables 19, 36. Note: Excludes grade crossing accidents.

The costs the average derailment takes its toll on the costs of damaged track, rolling stock repair crews on the scene customer penalties environmental damage and clean-up. Moreover, traffic diversions on can be huge often running into the millions of dollars. Added to this are the psychological and emotional costs to the employees their families, colleagues, and friends can be immeasurable when a catastrophic event occurs resulting in injury or worse a fatality. By reducing our accidents and casualties to employees resulted to be beneficial for all and an imperative for good business.

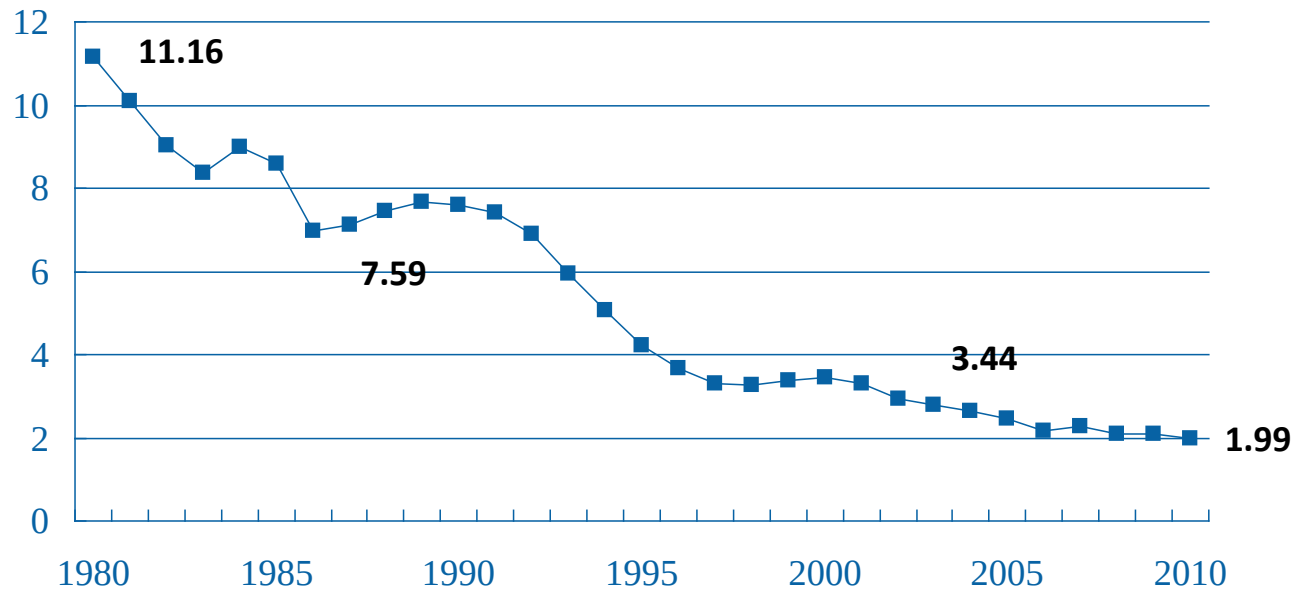

Chart 3—Total Casualties per 100 Full-Time Railroad Employees[8]

The American freight rail network immensely improved our safety programs since 1980. The safety plans that railroads implemented over the years with the help of their employees accomplished these improvements in safety**.** The American freight railroad's factory work floor stretches across coast to coast, border to border. As you are well aware railroading consists of work in handling heavy, moving equipment in an outdoor environment makes adherence to uniform safety rules even more important. That adherence to operating rules and eliminating at-risk behaviors can be life-or-death critical.

Training is a fundamental element of American freight rail safety programs. To assist our employees to properly understand these rules and policies and improve their performance, provides state of the art training. One of our carriers invested in offering a Technical Training Center, located at a community college where classroom and studio space features extensive simulation and lab equipment. Through investing in their safety program this companies' employees have the opportunity to understand and demonstrate the concepts of safe railroad procedures. Chart 3 & 4 illustrates the noticeable reduction for personal injuries incurred by railroad personnel since 1980.

Overall their safety program is aimed at respecting the commitment these employees have made to working safely and helping them maintain mindfulness, and at refreshing and improving their skills when needed.

Another carrier of note consistently has a record being the number one railroad with the least number of injuries over the past 21 years. Through their efforts the customers they serve recognize the value of doing business with a carrier that will never put safety anywhere but first. Through its efforts this carrier created a better, more competitive transportation industry in the United States, Canada, and Mexico. All the North American rail carriers look to this one railroad as a benchmark for safety. This particular carrier's objective, however, is not to win awards, but to provide employees with a safe work environment and to exceed customers' expectations by delivering products safely, efficiently and on time. The company's ultimate goal is simply: zero incidents and zero injuries.

[8] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data).
FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-2, 4-1.
FRA Accident/Incident Bulletin, 1980-1996, Tables 13, 36.
Note: Casualties include fatalities as well as injuries and occupational illnesses.

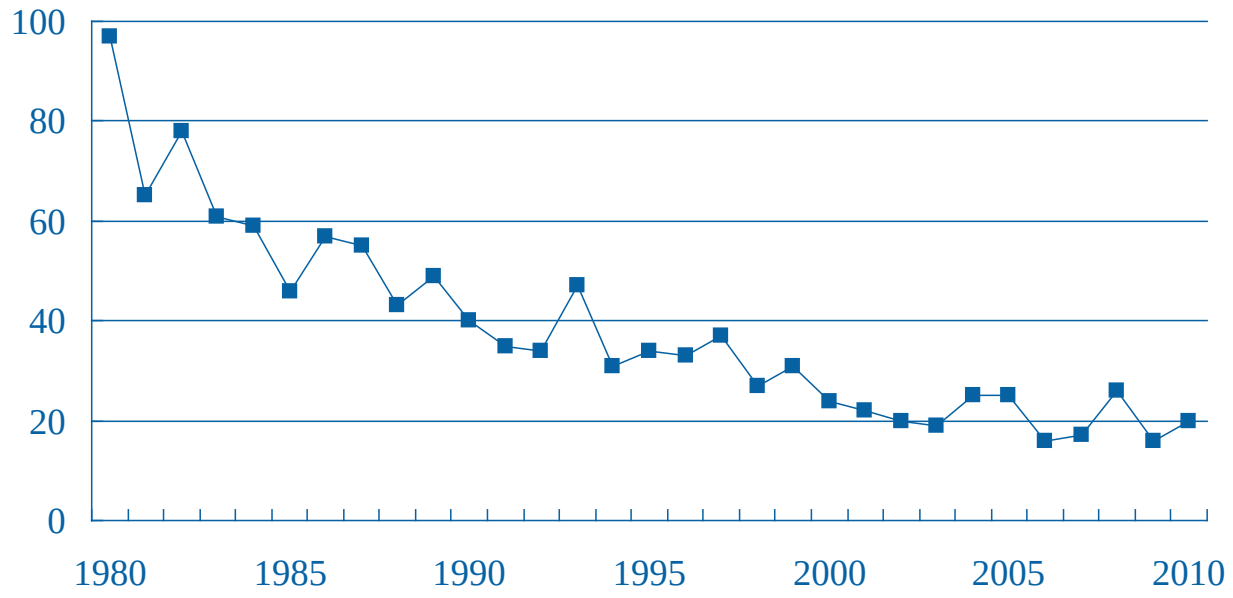

Chart 4—Railroads have reduced employee fatalities by half since 1990.[9]

As a result, this carrier developed system wide safety policies, expectations and goals that encourage employees to examine setbacks, learn from them, and prevent incidents from recurring.

The foundation of this carrier's safety practices is found in the Six Tenets of Safety:

1. All injuries can be prevented.
2. All exposures can be safe-guarded.
3. Prevention of injuries and accidents is the responsibility of each employee.
4. Training is essential for good safety performance.
5. Safety is a condition of employment.
6. **Safety is good business.**

On another American freight carrier there is the success story where a safe method results in better cost savings. In this case is centered on the issuance of slow orders for protection of maintenance of way (engineering) personnel that are working on the tracks. When a train comes upon a work gang the train will slow to a restrictive speed passing the work area. On many occasions a train crew may encounter numerous slow orders in succession albeit not in contiguous order. Once realizing this situation the carrier implemented a system to collect the slow orders in a contiguous area and issue one slow order to cover the entire field. This action allows the crews (engineering and operations) to work safely, less chance of overlooking a slow order, less wear and tear on equipment and less fuel consumption. Hence, **Safety is Good for Business.**

Conclusion

According to U.S. Department of Labor data, railroads today have lower employee injury rates than other modes of transportation and most other major industry groups, including agriculture, construction, manufacturing, and private industry as a whole.

> *"The railroads are investing their own money to accommodate this growth. They spent $10.7 billion last year on system-wide capital expansion projects and will spend $12.6 billion this year, he noted."* ***Matt Rose CEO BNSF Railway***

[9] Sources: http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (2010 data). FRA, Railroad Safety Statistics Annual Report, 1997-2009, Tables 1-2, 1-3, 4-2. FRA Accident/Incident Bulletin, 1980-1996, Tables 13.

American freight railroads are proud of their safety record, which results from railroads' recognition of their responsibilities regarding safety and the enormous resources they devote to its advancement. At the same time, railroads continue to improve in the area of rail safety. However, the focal point of all our programs is having funds available to further enhance safe operations. A commitment to safety that permeates the workplace is critical to promoting safety. Railroads have that commitment. But a healthy balance sheet is essential to safety as well. A financially-viable railroad will be in a much better position to invest in safety enhancements than a financially-weak carrier. The record investments that railroads have made in their infrastructure, equipment, and technology in recent years have made a noticeable difference in the way we do business today. Chart 5 illustrates areas of safety the American freight carriers are involved in to make a better and safer environment for our employees.

Industry Safety Improvements		
Technological Improvements to Railroad Safety: Track & Equipment	**Improved Equipment**	• **Heat treated curved plate wheels** • **Hot box detectors, roller bearings, acoustic detection systems** • **Air brake control valves & air brake tests** • **Advanced Technology Safety Initiative (ATSI), to identify and repair high impact wheels & other flaws.**
	Improved Track	• **Better Metallurgy** • **Welded rail** • **Fasteners** • **Detection of flaws, weak spots**
Railroad Industry Safety Programs: Operations, Training, Crossings	• **Individual Railroad Employee Safety Programs** • **Crew Resource Management (CRM)** • **Peer Observation Programs** • **Fatigue Countermeasures** • **Remote Control Operations** • **Locomotive Simulators** • **Interactive Video Individual Training** • **S.O.F.A.** • **Operation Lifesaver** • **Grade Crossing Upgrade (Section 130) Program**	

Chart 5

Through massive investments in safety-enhancing infrastructure, equipment, and technology; extensive employee training; cooperation with labor, suppliers, customers, communities, we have an industry today yielding data exemplifying a safe environment for all of our workers. Overall, as our revenues increased, and we were able to invest more in our infrastructure our injuries and accidents correspondingly decreased. Thus, Safety is not just Important it is an Imperative for a sound railroad industry.