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WHITE PAPER

Analysis of

Federal Motor Carrier Safety Policy Reducing Fatalities with Increased Financial Responsibility

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Introduction

First and foremost, Dr. Robert Pritchard's dissertation, entitled "Federal motor carrier safety policy: reducing fatalities with increased financial responsibility," should be viewed as a white paper or opinion piece with strong political overtones rather than a scientific dissertation. It is evident that Mr. Pritchard views the world through the lens of social activism and envisions the role of government as protectors of the economy and social welfare as the overriding good.

Although Mr. Pritchard admits that the number and rate of crashes and fatalities have decreased steadily for the past ten years, he declares that the free market economy (Capitalism) has been a failure in regulating the trucking industry concerning safety. It is important to note that Mr. Pritchard is an economist, and when he attempts to support his hypothesis and extrapolate the far reaching effects on the costs of both social welfare and public health when the trucking industry is not regulated by the government, Mr. Pritchard utilizes macroeconomics. Conversely, Mr. Pritchard reverts to microeconomics when assessing the effects of increasing insurance premiums for motor carriers. Further, Mr. Pritchard demonstrates throughout his dissertation, a general lack of historical knowledge and understanding as to how the insurance industry sets premiums, along with the ripple effect that was caused in past years when capacity restraints affected the growth rate of the American economy and led to widespread unemployment and financial hardship.

Though the dissertation was completed in May 2010, Mr. Pritchard utilizes data sets from 1999-2003 and 1998-2004 even though more recent data, which would be more reflective of the current state of safety and the significant regulatory changes that have occurred since the data was generated, is readily available. Even a cursory look at the data available today would have shown Mr. Pritchard that his declaration that approximately 5,000 large truck fatalities occur each year is incorrect. There were 4,283 fatalities in 2001 and 3,608 in 2011, which represents a 16% reduction in fatalities over a ten year span. This information is readily available and the exaggeration seems crafted to support the hypothesis.

In Mr. Pritchard's opinion, which is stated as fact, "Inefficient market outcomes are justification for government intervention.[1]" In order to demonstrate that the inefficient market outcome that exists because of the free market, and also that this is the reason that the industry needs to be regulated and insurance premiums need to be raised, Mr. Pritchard brings in "externalities" of societal welfare. The externalities are primarily the cost of health and medical care to the victims of accidents involving large trucks. In fact, Mr. Prichard views the legal torts and law suits as providing the necessary incentive for motor carriers to improve safety.

The dissertation defines efficiency in terms of social welfare and not what would normally be considered efficiency by an economist. Unfortunately, Mr. Pritchard totally disregards the free market economic view and never considers the tremendous efficiency of the trucking industry, which has changed the

[1] Robert D. Pritchard, *Federal motor carrier safety policy: reducing fatalities with increased financial responsibility, Northeastern University* (May 2010), pg. 9.

entire industrial economy through its ability to deliver over 68% of all freight in a timely fashion, while also fostering the revolution of just in time delivery.

Mr. Pritchard believes that it is the government's role to force motor carriers to greater public safety and evidently does not believe that motor carriers, or for that matter any industry (in a free market), will support safety in any meaningful way without government regulations, enforcement, and tort incentives.

The misinformation of the number of fatal accidents involving large trucks is just one of several errors that Mr. Pritchard uses in the dissertation. Mr. Pritchard's assumption that motor carriers would support the release of the data showing the crash and fatalities rates of carriers has certainly not been supported by motor carriers, as Mr. Pritchard appears to have no concept of the idea of fault and how this data can be misinterpreted and misused. In fact, Mr. Pritchard never mentions the statistics that show that large trucks are involved in crashes and fatal accidents

Critique of Dissertation on Insurance Minimums

The first sentence of the abstract begins with a false report that each year about 5,000 fatal crashes occur each year involving large trucks. The number of fatal crashes involving large trucks in 2001 was 4,283, and between 2001 and 2011 the number of fatal crashes decreased by 16%. However, insurance premiums did not increase significantly during this time span, and according to the hypothesis of the paper, the crash rate should have increased as the risk increased due to the result of an increase in mileage through those years.

In addition, there is no mention anywhere of the fact that "fault," when attributed to either party, is more than likely to be credited to the passenger car driver's behavior, than to the behavior of the truck driver. Nowhere in the paper does the author account for this fact, but instead, Mr. Pritchard directs the reader to assume that the large truck driver could have avoided the crash simply by paying more in premiums.

Mr. Pritchard suggests that the current insurance minimum of $750,000 should be increased to $1,750,000. However, Mr. Pritchard offers no explanation as to how he actually reached that particular figure. Instead, Mr. Pritchard states, "The expected improvements in safety, efficiency (lower fatal crash rate) and equity strongly justify this policy prescription.[2]" Nonetheless, it should be understood that actual improvement in safety should justify policy prescription, and the number of fatal accidents and crashes has decreased by 16% from 2001 to 2011.

The author did not consider the limitation associated with utilizing old and outdated information. As stated earlier, why does the author utilize data from 1999-2003 to formulate the balance sheet, the income statements, and the operational information when much more current information is available? This question has not been answered. It is important to note that there have been monumental

[2] Ibid, pg. 8.

changes within the trucking industry since those years passed, such as the hours of service changes. The Federal Motor Carrier Safety Administration (FMCSA) would argue that the change in hours of service regulations correlates to the number of crashes and fatalities that have decreased due to less fatigue. Other technological advances are now available and widely used by large carriers to decrease crashes and fatal accidents. None of these factors are considered by the author.

Mr. Pritchard performs an unmerited quantum leap that an increase in the cost of crashes (insurance premiums and claims paid) yields fewer crashes. Hence, an increase in the amount of funds required to cover crash costs will yield fewer crashes and greater safety. Although this may show a correlation, it does not show causation nor does the dissertation demonstrate that paying more for insurance decreases the number of crashes.

In the dissertation, Mr. Pritchard states, "Inefficient market outcomes are justification for government intervention.[3]" This is in sharp contrast to the belief held by the Property Casualty Insurers Association of America. According to David Golden, who is the senior director of commercial lines of insurance, "The free market does a good job of determining the appropriate level of insurance and the appropriate rates, and does this regardless of the financial responsibility requirements that the government sets.[4]" The author of the dissertation is expressing a political argument, not a statement of fact.

Continuing the same political argument the author states, "Government safety policy shapes motor carrier safety decisions.[5]" The author uses this political belief to offer further justification for more government involvement in the motor carriers' business decisions. The basic assertion is that motor carriers will be lax on safety if the government does not force them through regulations to create a safety culture. The statement is made that, "Profit is the standard for assessing performance and maximizing the value of the firm over time is the goal of the business owner.[6]" While this may be true, it does not mean that the carrier will put safety aside in order to make that profit. Instead, the safer motor carriers are more successful and profitable because they are making deliveries on-time, safely, and efficiently with few crashes and fatal accidents. In fact the author recognizes this fact when he states, "If the motor carrier decreases its crash losses, the bottom line is improved.[7]"

In the dissertation, Mr. Pritchard adds an emotional story of a family killed in a large truck crash where the driver of the truck, who was an illegal immigrant from Mexico with a fake Social Security number and a Texas commercial driver's license, crossed a center line and a family was killed. However, this appears more like a failure on the part of the FMCSA, the Texas Department of Transportation, and immigration and naturalization than on insurance standards. Moreover, the driver was driving for a

[3] Ibid, pg. 9.
[4] Arthur D. Postal, "Debate Rages Over Minimum Insurance Standards for Cargo Trucks," Property Casualty 360, http://www.propertycasualty360.com/2013/06/19/debate-rages-over-minimum-insurance-standards-for (accessed Nov 2014).
[5] "Federal motor carrier safety policy," pg 10.
[6] Ibid pg. 11.
[7] Ibid.

company in North Texas that hauled rock, so it was likely an intrastate truck. Mr. Pritchard does not tie the story in to insurance. Instead, the story appears to just be presented as an emotional piece.

Mr. Pritchard makes another unsubstantiated statement, "Motor carriers that excessively discount future crash liability increase risk and cause market failure.[8]" However, instead of providing a research source for this quote, Mr. Pritchard writes in the footnote, "Myopic behavior occurs when a carrier under provides safety because future liability costs are valued less than current cost savings from reduced safety expenditures.[9]" This statement is not from a research paper but from the author himself, and needs clarification as to what is an "excessive discount," or at least a mention of what "myopic behavior" refers to.

Furthermore, the author gives an example that a motor carrier in financial distress may forgo scheduled maintenance or exceed speed limits, which is followed by another assertion, "That the small probability of major crash loss combined with low required responsibility may also result in an under-provision of safety.[10]" "May" is the optimum word here as no other options are considered by the author, such as that the financially distressed carrier may actually slow down to save on fuel, neither does the author ever consider that the unintended consequences of higher premiums could help create financial distress for the carrier.

Mr. Pritchard clearly demonstrates that he has no understanding of how insurance providers review a carrier's history, or its drivers' history, as the author states that insurance carriers are not initially able to differentiate between safe and unsafe carriers, and therefore, the providers charge an average premium, thus, resulting in providers overcharging safe carriers and undercharging unsafe carriers. Yet the author utilizes various sources from federal agencies that track crashes and fatalities, in order to frame his dissertation.

Mr. Pritchard continues to make another unsubstantiated statement, saying, "Non-compliance with the minimum financial requirement regulation is an important indicator of risk and has also been linked to increased crashes.[11]" Mr. Pritchard gives no reference to what studies have actually shown this except a vague reference to "(FMCSA, 2007a)." In addition, the author transitions from what he considers to be under-provision insurance coverage, to those that do not meet the required amount now without explanation. Neither does Mr. Pritchard address how an increase in premiums will force those that currently operate without insurance to change this practice.

The following statement addressing that motor carrier safety is an important public health issue is baffling. The author states, "The epidemiological problem is corrected with social regulation (rulemaking and enforcement), facilitating damage recovery by injured parties (legal recourse in state

[8] Ibid, pg. 12.
[9] Ibid.
[10] Ibid.
[11] Ibid, pg. 13.

and federal courts), and with the assembly and distribution of firm-and-specific safety performance information.[12]"

Even disregarding the fact that epidemiology deals with disease, the proclamation that rulemaking, enforcement, law suits, and safety information is the answer for motor carrier's perceived threat to public health is a totally unsubstantiated statement and without merit. In rebuttal to the statement that legal recourse by injured parties helps to correct the epidemiological problem of motor carriers, the U.S. Justice Department in 1986 stated that **the expansion of business liability under tort law was the factor in explaining higher premiums and reduced coverage limits.**

Mr. Pritchard states, "The current low level of the financial requirement appears to create inefficiencies and distorts the provision of safety. Motor carriers bear only 41% of total crash costs (Forkenbrock, 1999).[13]" While the author does quote from research done by Forkenbrock that the estimated societal cost of motor carrier crashes were $14.8 million per 100 million miles in 1994, and that the amount paid by carriers was $6.09 million per 100 million miles, therefore, 59% of total social costs were not borne by carriers in 1994. Such old data and research is largely useless except to try and to prove a theory that the author espouses. However, nowhere in the dissertation does the author mention that according to NHTSA and FMCSA records, well over 65% of all fatal crashes and injuries involving large trucks are at the fault of the passenger vehicle, therefore bearing 59% of the total societal costs would seem to be more than enough.

"The recent appointment of Federal Motor Carrier Safety Administrator Anne S. Ferro- the first appointment by a national Democratic party President with both houses of Congress controlled by the Democratic Party-indicates a possible restoration of the policy goals embodied in FMCSA-1999.[14]" This is clearly a political comment and does not belong in a dissertation or research paper, except to point out the political bias that is clearly evident in the dissertation.

The author does recognize that small carriers will be the ones most in opposition to an increase and that large carriers will benefit as costs to their competitors rise. Nevertheless, nowhere does the author mention that the overwhelming proportions of carriers are small carriers, nor does the author recognize that most large carriers are self-insured.

It is evident by the author's assumptions, that he does not understand the basics of the trucking industry itself nor of the insurers of the trucking industry. Mr. Pritchard states, "The insurance industry will likely embrace an increase in the minimum financial responsibility requirements and the development of an effective safety management measure.[15]" According to David Golden, senior director of commercial lines for the Property Casualty Insurers Association of America, **"The free market does a good job of determining the appropriate level of insurance and the appropriate rates, and does this regardless of**

[12] Ibid.
[13] Ibid, pg. 14.
[14] Ibid, pg. 16.
[15] Ibid.

the financial responsibility requirements that the government sets." Furthermore, Mr. Golden emphasizes that the majority of "zone-rated vehicles" have limits of at least $1 million if not more.

Mr. Pritchard again demonstrates his lack of understanding of the insurance industry by assuming that the insurers will benefit from an increased demand for products and services, and that insurers will not be subject to increased costs. Nonetheless, looking at the impact of increasing the minimum required insurance levels reveals that this will cause major changes for insurance carriers and may very well have a similar capacity crisis effect that has occurred in recent years within the insurance industry. While Mr. Pritchard later focuses on exporting costs, he does not consider many related factors to causing a greater strain on the number of small carriers.

Raising the minimum Public Liability coverage for the small carriers, which constitutes 97% of the trucking industry according to FMCSA, would create economic disaster and a serious roadblock to the economic recovery efforts. Trucks deliver over 68% of all freight in the United States and are the life line for a majority of small communities that comprise rural America. The small, middle-class American businesses will be the entities to suffer, which will produce a ripple effect on the economy and could produce a serious roadblock, or possible double dip, in the recession. One of the leading causes of the 1980's recession was what has been called a "Liability Insurance Drought." Again, David Golden states, **"Insurance capacity is finite. There is only so much capacity out there.[16]"**

For a majority of the dissertation, Mr. Pritchard talks about the exporting of costs to society, but yet seemingly has no historical perspective of how insurance capacity can affect the entire economy. The amount of capital, or cash, the insurance companies have in anticipation of claims to be paid, determines their capacity to continue to offer insurance liability. In the recession of the 1980's, there was a **"capacity crisis"** within the industry. The consequence was a Liability Insurance Drought, whether it was because of the crisis resulting from tort litigation, as the Justice Department suggested or because insurance carriers made poor decisions on their investments and did not adjust their premiums correctly.

Insurance carriers were very meticulous about who and what they would insure, along with the amount they would insure for. Of course, this created a ripple effect where businesses were not able to receive the loans that they needed in order to function. In addition, municipalities were not able to build and develop, which all contributed to a full-blown recession. **Moreover, unemployment rose, the stock market tumbled, which created a vicious circle as investments tanked, and insurance became even scarcer. This is referred to as a "hard market" in insurance, which directly affected the middle class and caused many trucking companies to go bankrupt.**

It is important to understand that capacity becomes strained and limited to those that can afford it. For the small trucking industry, an increase in the mandatory Public Liability insurance will expose the insurance carrier to more claims risk and will offer an incentive for more tort litigation awards. **The**

[16] "Debate Rages Over Minimum Insurance Standards."

insurance carriers will be forced to "harden" their requirements for insurance, raising rates that will force small carriers out of business, which will again create a rippling effect.

Mr. Pritchard assumes without factual information, "Broad dissemination of safety about motor carrier crash and safety scores is embraced by both government and industry.[17]" Although the dissertation was completed prior to the roll out of the Compliance, Safety, Accountability program, the motor carrier industry has certainly not "embraced" the release of safety scores and crash information.

The author spends many pages extolling the trucking industry for its increased mileage and lowering of crashes, and that the reduction in fatality rates occurred without an increase in the mandatory requirement for liability insurance. This would seem to contradict the entire dissertation, but Mr. Pritchard does not recognize that his basic premise, that increases in required insurance is the necessary requirement to incentivize motor carriers to create greater safety management, is not valid.

Mr. Pritchard states, "Further, incentives created by regulation and liability frame motor carrier decision-making and are key to effective policy formation.[18]" From here and throughout the rest of the dissertation the whole paper is framed around the author's belief that social welfare is "the well-defined role for government and that the optimal level of safety cannot be determined by free-market interaction; this is evidenced by the long history of government regulations.[19]" This is a political theory and dogma that has just as many, or even more "experts," who would dispute this argument.

We can say little to explain the audacity of the following quote, "The overall **social movement towards enhanced product safety of recent decades and continuing today with the efforts of organizations like Public Citizen has motivated improved safety and impacted trucking. Further, an active plaintiff's bar has been effective in holding negligent parties responsible and reducing the spillovers from injuries to crash victims.[20]" In the foot notes, we read, "The link between motor carrier safety and the efforts of advocates like Ralph Nader is embodied in Joan Claybrook of Public Citizen…"**

Page 23-29: Mr. Pritchard utilizes much of his dissertation detailing his devotion to the theory that crashes have decreased through the years only through government regulations, enforcement, tort actions, and technological advances. However, Mr. Pritchard does admit that he was only looking at those carriers that had annual revenues of $3 million in 2003, thus leaving out 98% of all trucking companies.

The author again makes a quantum leap in saying, "Crashes in 1998 affected insurance premiums and profits in 1999; with higher insurance premiums for 1999, the crash rate for 2000 is expected to decline.[21]" Nevertheless, Mr. Pritchard does not look at the operational plans of the carrier. For example, a carrier that loses profit may cut their driver population or change their lanes of operation

[17] Ibid, pg. 17.
[18] Ibid, pg. 20.
[19] Ibid, pg. 21.
[20] Ibid, pg. 23.
[21] Ibid, pg. 35.

from high density to lower density lanes, which could possibly have an effect on safety. In general, there are so many other factors that would affect the decisions by motor carriers, that to assume that higher premiums were the primary reason for greater safety in the following year is presumptive and without merit. **However, the author does state that the use of owner-operators and higher wages paid has an inverse relationship to crashes.**

Mr. Pritchard attempts to prove (hypothesis) that higher financial responsibility requirement yields fewer crashes. However, the author fails to conduct proper research by focusing on carriers that have both had crashes in the past year and have had their premiums raised in order to find if those carriers experienced a reduction in crash rate the following year.

Nonetheless, the author instead equates two related hypothesis: "1) increased crashes decrease profit; decreased crashes increase profit..therefore, to increase profit, firms will decrease crashes; and, 2) increased crashes increase debt; decreased crashes decrease debt.[22]" Unexplainably, Mr. Pritchard transitions from his original hypothesis of higher financial responsibility requirements will yield fewer crashes, to a second hypothesis that tests for profit and debt. Mr. Pritchard attempts to associate his new theory with the original hypothesis, but this only dilutes his original hypothesis. Profit and debt are not the same as increased premiums. In addition, it is important to note that any results should have been studied and compared by the fact that the original hypothesis was not tested independent of other factors.

However, Mr. Pritchard's results are not based on premium increases as one would expect, except as they relate to profit or debt to equity loss. The findings were:

- Safer carriers had fewer total expenses the next year
- Purchased more transportation services
- Dedicated a greater share of their expenses to driver wages
- Have a lower vehicle SEA
- A lower debt ratio

The question is how does the original hypothesis apply, as it is not mentioned except as a subset of the expenses.

Once again the author shows his political bias by stating that; "With the election of President George W. Bush, the safety regime changed. The focus on reducing the number of fatalities was replaced with focus on reducing the fatal crash rate.[23]"

Mr. Pritchard continues to demonstrate his like of empirical study and research by stating **that there are more than 1 million owner-operators, but yet the author provides no reference as to where he came up with this figure.** Furthermore, Mr. Pritchard states incorrectly that the hours of service "can only be

[22] Ibid, pg. 46.
[23] Ibid, pg. 60.

changed by Congress' direction.[24]" Mr. Pritchard also asserts that the Code of Federal Regulations "are the sole safety standard by which truck drivers and operators are required to follow in the operation of commercial motor vehicles,[25]" which is also incorrect in that a CMV driver must also comply with safety standards of states etc. Ultimately, it is evident throughout the dissertation that Mr. Pritchard did not conduct due diligence in his research.

[24] Ibid, pg. 69.
[25] Ibid, pg. 71.

Bibliography

Postal, A. D. (2013, June 19). *Debate Rages Over Minimum Insurance Standards for Cargo Trucks.* Retrieved November 2014, from Property Casualty 360: http://www.propertycasualty360.com/2013/06/19/debate-rages-over-minimum-insurance-standards-for

Pritchard, R. D. (2010). *Federal Motor Carrier Safety Policy: Reducing Fatalities with Increased Financial Responsibility.* Northeastern University.