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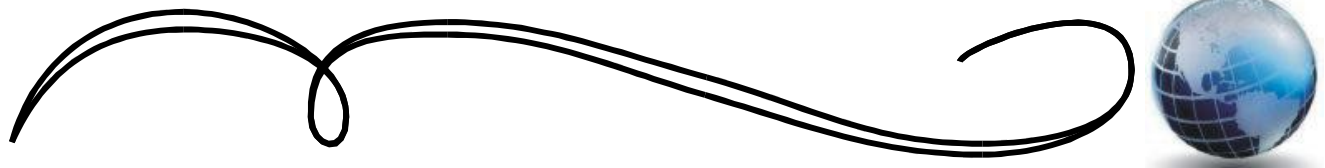
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Contact Information

Delta Nu Alpha Administrator
1720 Manistique Avenue
South Milwaukee, WI 53172

admin@deltanualpha.org

www.deltanualpha.org

Delta Nu Alpha Membership Information

See back page for form.

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**Mike Ilitch
School of Business**

**Global Supply
Chain Management**

Journal of Transportation Management

Editorial Policy

The primary purpose of the JTM is to publish managerial and policy articles that are relevant to academics, policymakers, and practitioners in the transportation, logistics and supply chain fields. Acceptable articles could include conceptual, theoretical, legal, case, and applied research that contributes to better understanding and management of transportation and logistics. Saying that, our policy requires that articles be of interest to both academics and practitioners, and that they specifically address the managerial or policy implications of the subject matter. Articles that are strictly theoretical in nature, with no direct application to transportation and logistics activities, or to related policy matters, would be inappropriate for the *JTM*. Articles related to any and all types of organizations, and of local to global scope, will be considered for publication.

Acceptable topics for submission include, but are not limited to, broad logistics topics, logistics and transportation related legal issues, carrier management, shipper management of transportation functions, modal and intermodal transportation, international transportation issues, transportation safety, marketing of transportation services, transportation operations, domestic and international transportation policy, transportation economics, customer service, and the changing technology of transportation. Articles from related areas, such as third party logistics, purchasing and materials management, and supply chain management, are acceptable as long as they are related to transportation and logistics activities.

Submissions from practitioners, attorneys or policymakers, co-authoring with academicians, are particularly encouraged in order to increase the interaction between groups. Authors considering the submission of an article to the *JTM* are encouraged to contact the editor for help in determining relevance of the topic and material.

The Editor information is: Dr. John C. Taylor, Associate Professor of Supply Chain Management and Department Chairperson, Department of Marketing and Supply Chain Management, School of Business, Wayne State University, Detroit, MI 48202. Office Phone: 313 577-4525. Cell Phone: 517 719-075. Fax: 313 577-5486. Email: taylorjohn@wayne.edu

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Manuscripts. Submit manuscripts to the editor by email attachment at taylorjohn@wayne.edu. Manuscripts should be no longer than 30 double-spaced pages and 7000 words. Guidelines for manuscript submission and publication can be found in the back of this issue.

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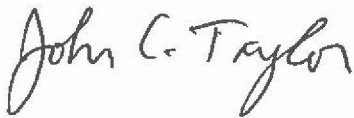
From the Editor...

Welcome to the Vol. 28 No 1 issue of the Journal of Transportation Management! This issue of the *Journal* starts with an article on the impact of lease accounting standards on airlines with operating leases, includes an article on crude oil transportation and railroad regulation, moves on to an article on refugee related international passenger transportation and the 4th Circuit Appeals Court decision on the transportation ban, and concludes with an article on the importance to students of various attributes used in evaluating internship vs. logistics positions.

Our first article looks at the increasing use of rail to transport crude oil and the railroads design of a safer rail car. The article questions why railroads would push to design this car given that they are protected from tort claims as long as they adhere to federal regulations. The article also questions why the railroads would push to have stricter standards enshrined in federal regulation. The second article examines the impact of lease accounting standards on airlines with operating leases. The results indicate that working capital, leverage, and solvency change dramatically in a negative direction when airlines use operating leases and their rankings amongst all airlines also change with implications for benchmarking performance. The third manuscript reviews the 4th Circuit Court of Appeals decision related to the Administration's transportation ban on refugee transportation from certain countries. The fourth article uses maximum difference scaling to look at the attributes that logistics students consider when evaluating logistics related internships and full time positions and whether there are differences in the variables considered most important. Significant differences in the most important variables were found and the findings should be of value to logistics employers.

At the *Journal*, we are continuing to make a number of changes that will improve the visibility of JTM, and improve its position in the supply chain publishing world. These include registering and updating journal information with several publishing guides, and placing the past and current content on services that provide visibility to Google Scholar.

I look forward to hearing from you our readers with questions, comments and article submissions. The submission guidelines are included at the end of this issue's articles and I encourage both academics and practitioners to consider submitting an article to the Journal. Also included in this issue is a subscription form and I hope you will subscribe personally, and/or encourage your libraries to subscribe.

A handwritten signature in black ink that reads "John C. Taylor". The signature is written in a cursive, flowing style.

John C. Taylor, Ph.D.
Editor, Journal of Transportation Management

VOLATILE CRUDE AND RAILROAD REGULATION

Brian Gurney

Montana State University Billings

Joshua P. Hill

Montana State University Billings

ABSTRACT

Newly discovered domestic crude oil has caused large increases in rail traffic and an associated increase in derailments. In principle, derailments expose railroads to liabilities that can be very large, but railroads are protected as long as they comply with federal guidelines. Despite this, the railroads took it upon themselves to design a safer rail car. The railroads have also lobbied federal agencies to make the new standards part of regulation. This paper addresses two puzzles. First, why would the railroads expend resources on self-regulation when protected from tort? Second, why would the railroads push to have these stricter standards enshrined in federal regulation? We conclude that the answer lies in regulatory and legal uncertainty coupled with using regulators to overcome a collective action problem.

INTRODUCTION

Shale oil is far more volatile than other sources of hydrocarbons. In fact, some in the industry refer to oil rail tank cars as “rolling bombs” (Gurney, 2015). What’s more, given the way that railways were constructed and the way that many cities sprang up around rail lines, these bombs roll past a large percentage of America’s population every day.

Train derailments and the resulting oil spills have made the news in recent years. This should not be surprising given the dramatic increase in American oil production from shale and the numerous political and regulatory obstacles to the construction of oil pipelines to transport this output. More oil transported by rail will naturally lead to an increase in oil spills from rail accidents. These accidents have resulted in court cases and calls for increased regulation of the industry.

The issue this paper addresses is not the danger that crude by rail (CBR) poses to the American population. The issue addressed is, instead, the industry’s reaction to this danger and to the threat of regulation. Instead of fighting regulation the industry has been requesting increased regulation for years. Moreover, they have voluntarily imposed safety standards that are well in excess of what their regulators require.

Lest this appear to be simply a case of optimal self-regulation, the story becomes even more interesting. While Congress has refused to pass liability caps on damages from rail accidents, they did pass legislation that protects railways against tort suits as long as railroads comply with existing federal safety standards.

Thus, the issue: railways are protected from tort as long as they comply with existing standards, and yet the railroads lobby for increasingly stringent standards. What can explain this?

The paper is structured as follows. First, we present a brief history of rail carriage and derailments. Next, we examine the regulatory and legal environment. Third, we discuss the efforts that the Association of American Railroads (AAR) have made in an attempt to improve the safety of CBR. Fourth, we assess the possible explanations for AAR behavior and determine that the association is being driven by the goal of self-regulation, but is seeking to use regulatory bodies as a means to overcome a collective action problem.

Derailments and Fatalities

Since July 2013, there have been over fourteen derailments of crude oil trains resulting in 3.3 million gallons of spilled crude oil and 48 fatalities (Associ-

ated Press, 2016). The worst derailment occurred in July 2013 when an oil train derailed in Lac-Mégantic, Quebec killing 47 and causing over \$1 billion in damages.

The most recent derailment occurred in June 2016 when 12 tank cars derailed spilling 42,000 gallons of crude oil, some of which made its way into the Columbia river. A fire broke out and local residents were asked to boil their water for several days.

Political and regulatory headwinds make construction of new pipelines a long-term endeavor. The next best alternative is transporting crude oil by rail (CBR). With the advent of horizontal drilling and the new success of recovering oil from tight shale formations with hydraulic fracturing (“fracking”) technology, CBR averaged more than 1 million barrels per day (bb/d) in 2014. This compares to 55,000 bb/d in 2010 (U.S. Energy Information administration, 2014). Although several billion dollars have been spent by railroads for maintenance and repair over many decades, much of the infrastructure was completed in the early 1900’s, and many of the tank cars carrying crude oil are based on designs that are forty to fifty years old. The vast majority of tank cars are owned by large leasing companies. All U.S. railroads combined own no more than 440 tank cars (Kahn, 2014).

This latest surge of crude oil has a tendency to be more flammable, and in fact has shown to be explosive.

THE RAILROAD REGULATORY ENVIRONMENT

Over the last 150 years a host of laws, acts and regulations covering the railroad industry have been instituted by the federal government with varying intentions and consequences. These laws are particularly important given the tendency of the courts to hold that federal railroad tort regulation pre-empts state law.

Today the primary regulating body is the Federal Railroad Administration (FRA) under the U.S. Department of Transportation (USDOT). Second-

ary regulating bodies include the Surface Transportation Board (STB), the Pipeline and Hazardous Material Safety Administration (PHMSA) and the National Transportation Safety Board (NTSB). The STB regulates topics from shipper complaints (i.e. collusion, price fixing, etc.) to monitoring shipping rates to approving new rail lines. PHMSA works with the industry to develop regulations and specifications for the transport of hazardous material such as ethanol and crude oil. Proposed new regulations for the railroad industry are passed upward from lower level regulating bodies (PHMSA) to the FRA to the USDOT. The NTSB is the primary investigative body in incidents involving derailments and provides safety recommendations based upon investigative outcomes.

The railroads have developed their own body that works with federal regulators. The Association of American Railroads (AAR) represents the railroad industry on issues involving legislation, lobbying and safety. AAR has a wholly-owned subsidiary, the Transportation Technology Center, Inc. (TTCI) located in Colorado. The relationship of the FRA and AAR is such that according to their website, “TTCI manages the Federal Railroad Administration’s (FRA) Transportation Technology Center (TTC). TTC is operated under a care, custody and control contract with the FRA” (Association of American Railroads, n.d.).

Rail Transport Law

According to U.S. Code6, “A rail carrier providing transportation or service subject to the jurisdiction of the Board under this part shall provide the transportation or service on reasonable request.” The important phrase here is “...shall provide....” Additionally, Interstate Commerce Act common law doctrine for railroads states, it is “...the duty of common carriers to transport all goods offered for transportation” (Abel, 2011). Therefore, railroads as common carriers must accept crude oil for transportation regardless of how volatile it may be, and regardless of any additional costs that the carrier will incur in effecting safe transportation.

The other important component of this discussion is carrier liability. Continuing under the Interstate

Commerce Act. "...the originating carrier and delivering carrier on a movement on a thru bill of lading are liable to the lawful holder of the bill of lading or delivery receipt or any party entitled to recover thereon, for the full actual loss, damage or injury to the property being transported caused by it or any common carrier, railroad or transportation company on which line the property moved. The statute specifically provides that no contract, receipt, rule, regulation or other limitation of any character shall exempt the carriers from such liability" (Hardman and Winter, 1975). In case of derailment or accident, the railroad is responsible to compensate the shipper for the full value of damaged product. This liability widens considerably when materials such as crude oil are released into the environment and/or cause fire.

Railroads have a working relationship with the federal government bridged by the Federal Railroad Administration. From a rail safety perspective, the guiding doctrine is the Federal Railroad Safety Act (FRSA) which was passed by Congress in 1970. The Act contains the laws and regulations that the railroads must adhere to across the U.S. Some states have passed additional laws or regulations pertaining to the railroads, however, the vast majority of court cases have ruled the FRSA supersedes state law (Rodgers, 1993).

The only blanket exception from liability falls under the Price-Anderson Act (U.S. Department of Transportation, 2008). Under this act, contractors to the Nuclear Regulatory Commission and the U.S. Department of Energy enter into agreements of indemnification that cover personal injury and property damage to those harmed by a nuclear or radiological incident.

The railroads completely understand their legal obligation to transport freight, even when that freight is a hazardous material. They also understand that their liability for accidents involving hazardous material could total millions of dollars per incident. The railroads have called on Congress to pass liability caps to help protect them. Congress has refused such requests. Congress however did pass legislation that protect against tort suits targeting

railroads as long as Federal safety and security standards are met (Shaffer and Smith, 2014).

CBR Transport Vessels

The DOT 111A tank car was designed in the 1960's and is the workhorse for liquid transport by the railroad industry. It can transport a wide variety of materials, both flammable and nonflammable. It became the target of more focused scrutiny in the early 2000's when ethanol began to transverse the country in large quantities. Approximately 65,000 DOT-111 tanker cars are currently in service carrying crude oil, ethanol and other flammable liquids. Each car can carry up to 30,000 gallons of material. Cost estimates to upgrade the DOT-111 fleet run as high as \$5 billion.

In August 2011, the AAR Tank Car Committee in collaboration with railroads and shippers developed a new standard for tank car design. Beginning in the fall of 2011 all new tank car orders are mandated to be constructed to the new design standard called the CPC (Casualty Prevention Circular)-1232. This design and its associated upgrades were entirely industry driven. Approximately 14,000 CPC-1232 cars are in service today.

EXPLANATIONS FOR INDUSTRY BEHAVIOR: PLEASE REGULATE US

The story of the railroads seeking increased regulation by the federal government is an example of neither a pure rent seeking activity nor purely self-regulation. Rather, uncertainty surrounding whether legal rules will be enforced has the railroads looking for cover in the realm of political relations.

Rent-Seeking & Legal Enforcement

On paper, it appears that the railroads are well protected in the event of accidents. As long as the railroads comply with federal safety protocols, they are largely protected from tort suits. Of course, if this was a certainty, there would either be incentive to lobby for decreased safety standards or, if such lobbying was stymied or unsuccessful, there would be little subsequent incentive for the rail companies to lobby further.

What is likely, however, is that there should be no incentive for lobbying to increase safety standards.

Self-Regulation

In a world of optimal legal regulation, where the least cost avoider is liable for any damages, or even one that was suboptimal but where the rules were clear and stable, it would be entirely understandable and expected for investment to be made into safety standards and tanker improvements. Of course, it would be expected that an optimal level of less than perfect safety would be reached.

This story certainly matches the experience in the rail carriage industry...but only up to a point. With shale oil came a dramatic increase in the volatility of the crude being carried. This increase in volatility, in a world of clear and stable legal doctrine, should have brought about a subsequent increase in the safety measures taken. In addition, the fairly constant increase in population of major metropolises, the increased value of assets subject to damage, and the increased perception of the risk of terrorism would also have caused an increase in the optimal amount of safety precautions as time progressed.

The increase in safety precautions advocated by the AAR are, then, entirely in line with what we would expect. In this instance, however, there would be no reason for the organization to lobby for the government agencies to increase their standards.

Public Relations

It is, of course, entirely possible (and even probable) that the rail companies were not looking to achieve optimal self-regulation. It is also possible that their main goal was not to lobby in order to have safety standards in their favor. Rather, it may be that they believe that the true battleground is neither in the courts nor in Congress. It may be that their primary purpose is to shift the debate in the public sphere—in effect a marketing or PR campaign.

The idea here would be that the rail companies fear that regardless of their legal liability, exploding train cars are so salient an issue for the public that one of two things will happen: either the courts will fail to

follow legal doctrine or government officials will feel compelled to revoke the protections currently in place.

If this is the case there still remains a serious question. Lower government standards than those in use by the railroads would, if anything, strengthen the companies' PR position. Holding constant the number of accidents as well as the safety standards in actual use, the railroads being able to point to their standards and issue press releases highlighting how much they'd spent in excess of what was required, how much more stringent their standards were than the requirements would surely be a stronger defense in the public relations arena than stating that they meet the standards mandated by the government agencies.

The upshot is that, while rail companies and the AAR are certainly aware of the public relation dimension to CBR carriage and any accidents or explosions, this is not sufficient to explain their push for the increase in government safety standards.

Barriers to Entry

A common explanation for industry members' pushing for increased safety regulation within the economics literature is that it can serve as a barrier to entry and thereby decrease competition ((Stigler, 1971). This should mean an increase in profitability within an industry compared to what it would be with lower barriers to entry.

In order for increased safety regulation to benefit incumbents, however, one of the following must be true: either incumbents must be grandfathered in and not be subject to the regulations, the cost of regulatory compliance must be lower for incumbents, or both.

Obviously, if incumbents are not subject to the regulations then the increased safety standards will increase the operating costs for new entrants but not for the incumbents. This will decrease entry into the industry and make life easier for the incumbents.

If it is lower cost to comply with the regulations for incumbents than it is for entrants then the more

stringent regulations will serve the same role. Less obviously, if there are economies of scale to compliance and the incumbents are larger than the typical challenger then increased safety requirements would be attractive to incumbents.

To what extent, then, does this explanation apply to CBR and the rail companies?

It seems obvious that there are large economies of scale in safety compliance. We need only look to the amount spent by the AAR to see that. To some extent, then, this could be the main driver. The question now is the extent to which the incumbent carriers are better able to exploit the gains from trade compared to new entrants.

The railroad industry faced tough economic conditions in the 1970's with nearly a third of the industry facing bankruptcy. That condition began to change with the passage of the Staggers Act in 1980 which allowed railroads to discontinue unprofitable routes, downsize personnel numbers, set rates, enter into long-term contracts and merge with competitors that had healthier balance sheets. By 2016, four major railroads (Norfolk Southern, CSX, Union Pacific and Burlington Northern Santa Fe) controlled over 90% of the railroad freight revenue generated in the U.S. These four regional monopolies are largely regulated at the federal level (Kimes, 2011).

Given the massive fixed cost of establishing new rail networks it seems unlikely that additional regulation was sought to deter aspiring rail barons. Existing firms have already incurred those fixed costs and they have, by now, become sunk costs. New entrants, however, would be obliged to incur all of these costs themselves and would, in fact, incur higher fixed costs than the incumbents.

The reasons that the setup costs for new entrants would be higher are threefold. First of all, much of the land that any new networks would run through is more valuable now due to population growth and urbanization over the last two centuries. Secondly, greater population density in urban areas means that acquiring the necessary permits would be costlier, perhaps prohibitively so. Finally, at least west of the

Mississippi, incumbents were granted sections of land in order to encourage expansion. It is very unlikely that this generosity would be repeated with any aspiring rail company today.

Before we discard this explanation, however, we should consider competition more broadly. It is possible that the competitors at issue were trucking companies. Clearly trucking companies are much smaller than rail companies and, if they were subject to the more rigorous safety standards this could make it much harder for them to compete.

The reality, of course, is that carrying CBR over any distance is far less costly than on the roads. The only financially viable competitors for CBR would be pipelines and shipping and increasing the safety standards for CBR will have no direct impact upon the cost of operating a pipeline or on the shipping technology required. It may create a regulatory environment that would be stricter when evaluating pipeline projects but this is a distant enough prospect to be extremely unlikely. Moreover, pipeline projects already face significant and often insurmountable obstacles.

The upshot is that, while the erection of barriers is common elsewhere and perhaps even in other areas in which the rail companies operate, it cannot explain the companies' behavior in this regard.

Collective Action

The willingness of companies to contribute to the legal defense of others following the Lac-Mégantic accident points us towards the difficulties of some creating problems for the rest of the group. In other words, there is some spillover from oil spills.

It is difficult to assess exactly what this spillover is but there is definitely concern about possible congressional reaction to accidents (Gurney, 2015). In other words, the concern would be not that the legal rules would not be applied in a specific instance (although this is also probably a concern). Rather, it would be that one railroad's lack of diligence (or simply bad luck) could have a deleterious impact upon the regulatory and legal environment for all. Headline grabbing accidents that either result in a

legal precedent for greater liability for railroads or in the removal of congressional protection would be problematic for all members of the industry not just the miscreant.

CONCLUSION

In the end, it is a combination of points that yields a meaningful explanation. Railroads' safety measures (or lack thereof) have significant spillovers upon other railroads through possible greater regulation and/or legal liability. Individual railroads can adopt more rigorous standards than those required of them, and they will both be less likely to experience accidents or adverse legal judgements. Other railroad's safety precautions could severely and negatively impact the "safe" railroad through higher legal costs, compliance costs, or even closure of routes through population centers. While the AAR offers a venue for collective action to address the spillover problem to a certain extent, the enforcement of self-regulation will simply be more effective with the cudgel of the state behind it.

The regulated are requesting more regulation. If the railroads can prove that they have adopted a proactive posture in regard to transportation of hazardous materials and are adhering to the rules and laws as mandated by the federal government, then they feel like they have some level of political and financial cover in case of catastrophe. And they're probably right.

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BIOGRAPHIES

Brian Gurney is an Adjunct Assistant Professor of Management at Montana State University Billings. He holds an MBA in Information Systems from the University of Colorado. He has many years experience working in industry and clients have included Montana-Dakota Utilities, Stillwater Mining Company and the U.S. Army Corps. of Engineers. He returned to higher education in 1999 as an adjunct assistant professor in Operations Management and Project Management. E-Mail: bgurney@msubillings.edu

Joshua P. Hill is an Assistant Professor of Economics at Montana State University, Billings. He holds an MA (2007) and PhD (2010) in Economics from George Mason University in Virginia. His research interests include political economy, economic development, law and economics, and the economics of organizations. E-Mail: joshua.hill5@msubillings.edu

THE IMPACT OF LEASE ACCOUNTING STANDARDS ON AIRLINES WITH OPERATING LEASES: IMPLICATIONS FOR BENCHMARKING AND FINANCIAL ANALYSIS

Paul Caster
Carl A. Scheraga
Fairfield University

Michael J. Olynick
Deloitte

ABSTRACT

In 2016, the Financial Accounting Standards Board (FASB) has issued a new standard for lease accounting. The standard requires capitalization by lessees of most leases currently treated as rentals, i.e., those currently classified as operating leases under the existing standard for lease accounting. We examine the impact on airlines that currently make use of operating leases. Several key financial ratios are examined before capitalization and then after capitalization on a pro forma basis. The results indicate that working capital, leverage, and solvency change dramatically in a negative direction, and airline rankings based on those ratios also change, which has implications for benchmarking performance.

INTRODUCTION

Benchmarking is a widely used management tool. It can be performed in any type of organization, as long as data are available for peer organizations. It may involve financial and also nonfinancial measures. For example, a public company may want to compare its efficiency in the use of assets to other, similar companies. It may calculate the asset turnover ratio using readily available financial data for a peer group of companies. It would then rank the companies to see where it ranks relative to the peer group.

Using published financial statement data for benchmarking may be problematic, particularly where generally accepted accounting principles have fallen behind economic reality. Just how far behind is subject to speculation, but Standard & Poor's, the large credit-rating agency, makes adjustments for almost twenty financial statement items, including accrued interest, capitalized interest, postretirement employee benefits, and operating leases, to name a few (Standard & Poor's, 2013). One adjustment that has received a great deal of attention is the adjustment for operating leases.

Accounting for leases has been a vexing problem for standard setters for almost three quarters of a century. According to Myers (1962, 1-2), in 1949, the Committee on Accounting Procedure issued Accounting Research Bulletin (ARB) No. 38 in response to the increased use of leasing as a means of financing the purchase of assets with little to no disclosure of the existence of such leases. ARB No. 38 took a principles-based approach to lease accounting, calling for capitalization of future payments under a lease that in essence finances the purchase of an asset, with an entry on the balance sheet for the leased asset and corresponding lease payments liability.

In the years following the issuance of ARB No. 38, the use of leasing continued to grow, capitalization to the balance sheet was nearly non-existent, and disclosure was less than that called for by ARB No. 38. Given this, financial analysts wanted more disclosure (Myers, 1962, 2-3). These same issues persisted to some degree for the next six decades, despite repeated efforts by accounting standard setters to change the behavior of lessees and lessors. It is noteworthy that four of the Accounting Principles Board's (APB) 31 official opinions involved lease accounting. The Financial Accounting Standards Board (FASB) issued Statement Number

13 on lease accounting in November 1976. Following that, the FASB issued a significant number of additional statements to amend lease accounting, as well as a number of official interpretations and technical bulletins involving the accounting for and reporting of leases.

At least two major problems cause concern for regulators. One is the persistence of the use of operating leases by lessees to achieve off-balance sheet financing for the acquisition of long-term assets. The second is the lack of symmetry that may result in a “missing asset” problem. Imagine that an airline is leasing a fleet of aircraft from a manufacturer and desires off-balance sheet financing. Using the FASB Statement Number 13 rules-based approach, the airline is able to write a lease contract in such a way that it qualifies as an operating lease. Thus, the fleet of aircraft (and the related liability) is not recorded on the books of the airline. However, the aircraft manufacturer has no desire to keep the aircraft on its books once it delivers the fleet. Thus, the lessor finds a way to record the same lease as a sales-type lease. The ability for each of the parties to take its preferred accounting is at the heart of this problem.

One method of classifying the same lease as an operating lease by the lessee and yet as a sales-type lease by the lessor is for the lessor to hire a third party to guarantee the residual value of the leased asset. One criterion for treating a lease as a capital-type lease is if the present value of the minimum lease payments is 90% or more of the fair value of the asset. In the airline example, since the lessee is not guaranteeing the residual value, it excludes the residual value from its present value calculation, thereby falling below the 90% threshold. In contrast, the aircraft manufacturer includes the residual value in its present value calculation, thereby exceeding the 90% threshold. It then records the lease as a sales-type lease and removes the leased aircraft from its inventory. The airline simply records rent expense as lease payments are made. In this manner, the entire fleet of aircraft simply “disappears.” That is, the fleet is not recorded on either company’s books. These “phantom assets”

become a problem for those evaluating either company’s financial statements.

After a long history of unsuccessful attempts at regulating the accounting for leases to avoid the above mentioned problems, the FASB and the International Accounting Standards Board (IASB) embarked on a joint project to develop new rules on leasing. And in 2016, each board issued new standards. The new standards are similar, and the differences between them are not relevant to the current research. The main feature of the new rules is that capitalization will be required for virtually all leases, which should, in theory, put an end to off-balance sheet financing. According to an article in *The Wall Street Journal* (2012), the new lease accounting rules may result in as much as two trillion dollars of additional debt added to corporate balance sheets. For public companies following the FASB’s rules, the new lease accounting standard goes into effect for fiscal years beginning after December 15, 2018.

We investigate the impact of capitalization by lessees in the U.S. airline industry, building upon the pioneering work of Gritta (1974a, 1974b). Airlines make heavy use of leases, both for aircraft and also for ground operations. Gritta (1974a) first examined how capitalization of operating leases would impact certain measures of leverage in the U.S. domestic airline industry. He updated the original study twenty years later to see if the use of leases had changed (Gritta, Lippman, and Chow, 1994). The current research expands upon this line of research by using a more refined method to capitalize operating leases, and tailoring it to each individual airline’s financial structure. We use a capitalization method similar to that used by Standard & Poor’s Ratings Services, as discussed in Berman and LaSalle (2007). We also examine the impact on measures of liquidity and profitability in addition to leverage.

LITERATURE REVIEW

Thousands of journal articles have been written on the topic of lease accounting. We limit our literature review primarily to articles that examine the impact of capitalizing operating leases by lessees in the U.S. airline industry.

Gritta (1974a) laid the foundation for much of the research in this area. He examined the impact of capitalization on ten U.S. airlines and calculated before and after figures for two commonly used ratios to measure financial leverage. As one would expect, Gritta found that those airlines already making the greatest use of leverage were the ones most impacted by capitalizing their leases. In a second paper published the same year, Gritta (1974b) focused on the four largest U.S. airlines and included leases of ground equipment in addition to aircraft. He found significant changes in two measures of financial leverage when leases were capitalized, and he speculated that the impact would be greater when making intra-firm comparisons within the airline industry, since several other companies at that time did not make great use of leasing.

Gritta, Lippman and Chow (1994) report that the use of leases by airlines grew significantly in the twenty years since Gritta's original research (1974a, 1974b). In addition, accounting for leases had changed since the prior studies, with the issue of Statement of Financial Accounting Standards Number 13: Accounting for Leases (FASB, 1976), necessitating a fresh look at this persistent problem. Using airline data from 1991 financial statements, they found results similar to the earlier studies, but the impact on leverage was even more pronounced. They conclude that despite the FASB's lease accounting rules, "air carriers can structure leases to avoid capitalization of lease payments (1994, 199).

Gritta and Lippman (2010) examined the extent to which airlines changed their use of operating leases since the original two studies in 1994 and 1974. They reported that "Alaska, Continental, and USAir structure all of their leases as operating leases" (2010), an increase from the prior studies. They capitalized the operating leases using the same methodology as in the prior studies, with a 10% discount rate for all airlines in the sample. They report the impact on two leverage ratios. Also, for the first time, they rank the airlines based on each leverage ratio and show before and after ranks. Although no test of significance was reported, they concluded that the relative riskiness, as measured by

the rankings of the debt ratio, remained unchanged by capitalizing the operating leases.

Scheraga and Caster (2014) examined the impact of ignoring capital leases in the airline industry when benchmarking the strategic management of financial leverage. They found that capitalizing operating leases led to statistically significant declines in measures of operating efficiency, using data envelopment analysis. They conclude that "not capitalizing operating leases to the balance sheet creates significant distortions in the perceptions and assessment of the abilities of managers to utilize financial leverage to make investments that enhance firm profitability" (2014).

Furthermore, Scheraga and Caster demonstrated what Gritta (1974a) had observed earlier. Gritta said "the effect of capitalization on these ratios is significant, especially in an intra-industry comparison." It is interesting because some have suggested that capitalizing the operating leases may have no effect. For example, Boatsman and Dong conclude that "lease accounting is often not a matter of consequence in the context of estimating equity value" (2011, 1). However, they do indicate that it may have indirect effects, such as management compensation effects and the effects on lender behavior.

Lipe (2001) reviewed the lease accounting literature and organized results around three decision contexts. In terms of financial statement analysis of equity risk, he reported that most of the studies found that capitalization of operating leases resulted in better measures of shareholder risk. At the same time, the impact on equity value showed inconclusive results. However, sophisticated investors already adjust for operating leases, thus the impact on equity values may be minimal. Lipe's third category was management decision-making. He reported evidence that management makes use of the FASB Statement Number 13 rules to construct lease contracts that circumvent capitalization of leases when that is their intent.

Grossman and Grossman (2010) examined the impact of capitalization on 91 of 200 companies in

the Fortune 500. They were among the few that discussed and examined the impact on the current ratio. Not surprisingly, they found that current liabilities increased, in some cases more than 10%, with one company experiencing an almost 50% increase in current liabilities. They reported that the current ratio declined by significant amounts in some cases. In addition, they calculated the impact on the debt ratio and reported the impact for 8 companies in their sample. One implication they drew from their results is that capitalization of operating leases may cause many companies to be in violation of restrictive covenants in debt agreements.

From Lipe's (2001) review and categorization of the lease accounting literature, and from the airline studies conducted to date, the empirical results demonstrate that if the concern is with equity valuation, capitalizing the operating leases may not make a difference. But for most other types of decisions, including lending, credit ratings, and benchmarking, capitalization of operating leases results in significant changes in the relative financial position of various airlines.

METHODOLOGY AND DATA SET

Berman and Lasalle (2007) review the methods used by three credit rating agencies to capitalize operating leases. They reported that Standard & Poor's uses lease footnote information to calculate the present value of minimum lease commitments. They use an interest rate that reflects the actual borrowing costs as the discount rate for the present value calculation. Moody's simply multiplies reported rent expense by a factor of 5, 6, or 8, depending on the industry segment involved. For airlines, the factor is 8. They believe the result approximates the present value of the future minimum lease payments. Fitch uses both methods. If data permits, they calculate the present value, otherwise, they multiply rent expense by a factor of 8 to approximate the capitalized amount.

The factor method seems too simplistic and ad hoc. Instead, we followed the capitalization method used by Standard & Poor's (2013). Damodaran (2016) provides an Excel template for converting operating

leases to capital leases. His methodology is very similar to that used by Standard & Poor's. However, determining the appropriate discount rate to use for the present value calculations is problematic. With more airlines making greater use of variable interest rate debt agreements, most airlines no longer disclose in financial statement footnotes a weighted average interest rate on their outstanding debt. Some disclose separate rates for fixed-rate debt and variable-rate debt, while others do not disclose any weighted average rate. We followed a suggestion in Imhoff, Lipe, and Wright (1997) to calculate an implied interest rate by dividing interest expense by outstanding long-term debt. We then compared the resulting interest rate to individual rates disclosed in the long-term debt footnote to ensure that the rate used for capitalization was reasonable, that is, within the range bounded by the lowest to highest interest rate on any given debt agreement.

The data set used in the study reported on here was drawn from the Department of Transportation's Research and Innovative Technology Administration (RITA) Bureau of Transportation Statistics, Form B-43, inventory of aircraft. The inventory was for calendar year 2015. Each airplane is identified by RITA as being owned, leased as a capitalized lease, or leased as an operating lease. We deleted all airlines that had no operating leases and confined our sample to U.S. passenger airlines. Also, each airline had to be publicly traded with a Form 10-K annual report available for 2015. Finally, we deleted one airline that was in Chapter 11 bankruptcy proceedings. The result was a sample of 10 airlines, including some of the largest U.S. airlines, i.e. American, Delta, and United.

RESULTS

We chose one measure of short-term liquidity; the current ratio, two measures of long-term solvency; the debt ratio and times interest earned, and two measures of profitability/efficiency; return on assets and asset turnover, for the purpose of benchmarking financial performance within the sample of airlines.

TABLE 1
RATIOS AND FORMULAS

Current Ratio	Current Assets /	Current Liabilities
Asset Turnover	Total Revenue /	Total Assets
Return on Assets	Operating Income /	Total Assets
Times Interest Earned	Operating Income /	Interest Expense
Debt Ratio	Total Liabilities /	Total Assets

Table 1 provides the formulas used to calculate these ratios.

Table 2 shows each airline, its ratio, and its ranking within the group both before and after capitalization of operating leases.

Some airlines saw dramatic changes in ratios. For example, Spirit Airlines had a current ratio of 2.20:1 before capitalization. It fell to 1.48:1, a decline of about one third. In contrast, Southwest and Delta had very low current ratios before capitalization, and their ratios declined by only eight percent after capitalization. The most dramatic change occurred in the asset turnover calculations, where Virgin America fell from first in the rankings, with a turnover of 0.98 times, to last, with a turnover of 0.48 times, a decline of about 50 percent. Virgin America also dropped from first place to sixth place in the debt ratio after capitalization of its operating leases.

Table 3 shows the results of the non-parametric t-test for differences in means before and after adjustment for operating leases. The current ratio fell significantly ($t = 2.81, p = .01$), which is not surprising given that capitalization of operating leases only adds amounts to the current liabilities (due to the current portion of long-term debt) with no addition to current assets. Because the current ratio has to fall in value after capitalization, we used the one-tailed test. Similarly, asset turnover declined significantly ($t = 4.87, p < .01$). The numerator is unchanged by capitalization, but the denominator increases when the right-to-use asset is recognized and added to total assets. The change in return on assets was not statistically significant ($t = 2.20, p = .06$). We used the two-tailed test because both the

numerator and denominator change with capitalization of operating leases, so we could not predict the direction of the change in the ratio. Finally, both measures of solvency changed significantly. The change in “times interest earned” has a t value of 3.59 ($p < .01$) and the change in the debt ratio has a t value of 3.25 ($p < .01$).

Since airlines often benchmark their performance against other airlines, we also ranked the airlines on each ratio. We performed the Friedman (1937) test for a significant change in ranks before and after capitalization of operating leases. The Friedman test was developed by economist Milton Friedman as a way of examining ranked data to determine if a significant change in ranks occurs. Table 4 shows the results of the Friedman tests. Ranks changed significantly for all of the ratios except return on assets.¹

SUMMARY AND CONCLUSIONS

This research demonstrates that companies making use of operating leases, that is, off-balance sheet financing, will be heavily impacted by new lease accounting standards requiring capitalization of most operating leases. This treatment will be required for fiscal years beginning after December 15, 2018. By examining five widely used financial ratios that capture measures of liquidity, long-term solvency, and profitability, we found that statistically significant changes occurred in the means for all but one ratio, and in the rankings within the group, again for all but one ratio.

One limiting aspect of this research is that all of the companies examined came from one industry, U.S. airlines. It is an industry where some participants

TABLE 2
RATIO ANALYSIS BEFORE AND AFTER CAPITALIZATION OF OPERATING LEASES
(As of Dec. 31, 2015)

Carrier	Current Ratio			Debt Ratio			Times Interest Earned					
	Before	After	Rank	Before	After	Rank	Before	After	Rank			
Alaska Airlines Inc.	0.921	5	0.831	5	54.4%	3	60.9%	1	30.905	2	14.278	2
American Airlines Group	0.734	6	0.636	6	88.4%	10	90.6%	10	6.657	9	5.076	7
Delta Airlines	0.517	10	0.476	10	79.6%	8	82.8%	7	16.220	5	7.990	3
Hawaiian Holdings	0.963	4	0.841	3	82.2%	9	85.9%	9	7.653	8	5.458	6
JetBlue Airways	0.604	8	0.564	7	62.9%	4	66.7%	2	9.500	6	7.429	4
SkyWest Airlines Inc.	1.354	2	1.007	2	68.6%	6	74.3%	5	3.092	10	3.002	9
Southwest Airlines Co.	0.543	9	0.502	9	65.5%	5	69.9%	4	34.017	1	18.369	1
Spirit Air Lines	2.201	1	1.476	1	51.6%	2	67.9%	3	24.979	3	7.307	5
United Air Lines Inc.	0.631	7	0.528	8	78.1%	7	83.9%	8	7.722	7	2.650	10
Virgin America	1.261	3	0.837	4	48.5%	1	74.6%	6	24.326	4	3.193	8

	Return on Assets			Asset Turnover				
	Before	After	Rank	Before	After	Rank		
Alaska Airlines Inc.	19.9%	2	19.3%	1	0.857	5	0.735	2
American Airlines Group	12.8%	7	12.6%	7	0.847	6	0.684	4
Delta Airlines	14.7%	5	12.8%	6	0.766	8	0.647	7
Hawaiian Holdings	17.0%	4	16.5%	4	0.923	4	0.734	3
JetBlue Airways	14.0%	6	14.6%	5	0.741	9	0.666	6
SkyWest Airlines Inc.	4.9%	10	6.1%	10	0.645	10	0.529	9
Southwest Airlines Co.	19.3%	3	18.7%	2	0.930	2	0.811	1
Spirit Air Lines	20.1%	1	16.6%	3	0.846	7	0.562	8
United Air Lines Inc.	12.6%	8	7.4%	8	0.927	3	0.680	5
Virgin America	11.3%	9	7.3%	9	0.975	1	0.481	10

TABLE 3
DIFFERENCE IN MEANS

<u>Ratio</u>	<u>Mean Before</u>	<u>Mean After</u>	<u>t-Statistic</u>	<u>p-Value</u>
Current Ratio	0.97	0.77	2.81	0.01
Asset Turnover	0.85	0.65	4.87	<.01
Return on Assets	0.15	0.13	2.20	0.06
Times Interest Earned	16.51	7.48	3.59	0.01
Debt Ratio	0.68	0.76	3.25	0.01

TABLE 4
RESULTS OF FRIEDMAN TEST

<u>Ratio</u>	<u>p-Value</u>	<u>Chi-Square</u>
Current Ratio	0.001565	10
Asset Turnover	0.001565	10
Return on Assets	0.05778	3.6
Times Interest Earned	0.001565	10
Debt Ratio	0.001565	10

make heavy use of operating leases. We have no reason to believe the results would not generalize to other industries where the use of operating leases is prevalent.

Since companies and financial analysts make use of benchmarking and other comparisons within an industry, the results demonstrate that it is necessary to make adjustments for operating leases before any meaningful comparisons can be made. As suggested by Gritta (1974b), the results would be even more dramatic if comparisons were made to all of the companies in an industry, including those that do not make use of operating leases. Finally, it is interesting to note that long before the FASB proposed new lease accounting standards requiring capitalization of operating leases, credit rating agencies such as Standard & Poor's, Moody's, and Fitch made such adjustments. However, this is not an ideal way of addressing the issue, and full capitalization of leases will provide for more transparency in actual reported data.

ENDNOTES

1. We also calculated the Wilcoxon signed-ranks test because we only had two panels of data for each ratio, before and after capitalization of operating leases. The same four ratios showed statistically significant differences in ranks after capitalization of operating leases, similar to the Friedman test.

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BIOGRAPHIES

Paul Caster is Professor of Accounting in the Dolan School of Business at Fairfield University. His primary research interests include audit evidence and audit decision-making, the financial impact of accounting principles, and analysis of business strategy using strategic variance analysis. Caster has published articles in *Auditing: A Journal of Practice and Theory*, *Issues in Accounting Education*, *Journal of Accounting Literature*, *Journal of Forensic Accounting*, *Journal of Transportation Management*, *Journal of the Transportation Research Forum*, *Research in Accounting Regulation*, *The Quarterly Review of Economics and Business*, *The Journal of Accountancy*, *The CPA Journal*, *The EDP Auditor Journal*, and the *Financial Analysts Journal*. Caster received his Ph.D., in accounting, from the University of North Texas, an MBA degree from the University of Chicago, and a B.S., in business and economics, from Lehigh University. E-Mail: pcaster@fairfield.edu

Carl A. Scheraga is Professor of Business Strategy and Technology Management. His fields of research and teaching include transportation and international logistics, global strategic management, cross-cultural management, and the management of technology and innovation. Scheraga has published numerous articles in *Transportation Research Series A*, *Transportation Research E*, *Journal of Transportation Management*, *Transportation Journal*, *Journal of the Transportation Research Forum*, *Journal of Public Policy and Marketing*, *Technology in Society: An International Journal*, *Journal of Banking and Finance*, *Global Business and Finance Review*, *Journal of Investing*, *Management International Review*, *International Journal of Advertising*, *International Review of Economics and Finance*, and *Business Education Innovation Journal*. He also has published chapters in such volumes as *Japanese Direct Investment in the United States: Trends, Developments and Issues*, *International Financial Market Integration*, and *Neuroeconomics and the Firm*. As a co-author, he has received the Transportation Research Forum Outstanding Research Paper Award in 1998 and the Aviation Research Paper Award in 1999. Scheraga received his Ph.D. in Economics from the University of Connecticut, an M.A. in Economics, and a Sc.B. in Mathematics from Brown University. E-Mail: cscheraga@fairfield.edu

Michael J. Olynick is a tax consultant with Deloitte. He received his MS degree, in accounting, and his BS degree, in Business Administration, from Fairfield University. E-Mail: Michael.Olynick@student.fairfield.edu

INTERNATIONAL PASSENGER TRANSPORTATION: STATUS OF THE REFUGEE-RELATED PASSENGER TRANSPORTATION BAN AFTER FOURTH CIRCUIT OPINION

Kevin A. Diehl
Western Illinois University

ABSTRACT

The majority opinion of the Fourth Circuit US Court of Appeals in *International Refugee Assistance Project v. Trump* is one of the more important refugee transportation rulings in a number of years. It is likely to be a very important precedent regarding refugee travel transportation (Executive Orders (EOs) 13769 and 13780, “Protecting the Nation from Foreign Terrorist Entry into the United States”). At this writing it is not certain what the future direction of these bans will be, but it would appear that the Fourth Circuit ruling will hold considerable sway. This paper discusses these EOs’. Procedurally, Chief Judge Gregory and Judges Diaz, Floyd, Harris, King, and Wynn formed the majority. Judges Traxler, Keenan, and Thacker wrote concurring opinions. Judges Niemeyer, Shedd, and Agee composed dissenting opinions.

INTRODUCTION

*International Refugee Assistance Project v. Trump*¹ is one of the most important transportation case rulings in some time. As such, how and why the courts have overturned EOs 13769 and 13780² fits in no more ideal place than the prestigious pages of this journal. The paper proceeds by reviewing the facts and opinion in the case. Transportation implications and the future are then discussed.

THE EXECUTIVE ORDERS AND INTENT

EO 13769

In late January 2017, President Trump signed EO 13769. It was issued in response to alleged past and present visa-issuance failings. The EO’s text discussed barring nationals of certain countries for bearing hostile attitudes toward America. It emphasized countries’ nationals who would put violence and ideology first and US rules second. The EO also mentioned excluding countries’ nationals who believe in hate and honor killings. Under authority from 8 U.S.C. Section 1182(f), President Trump used the EO to suspend the travel and transportation of foreign aliens of Iraq, Iran,

Libya, Somalia, Sudan, Syria, and Yemen for 90 days. Allegedly, the Director of National Intelligence, Secretary of Homeland Security, and Secretary of State would utilize this time to review what additional information was required to determine whether those countries’ nationals posed a national security threat. In addition, this EO reduced refugee admission from 110,000 to 50,000 and permanently barred Syrian refugees. The US Refugee Admissions Program (USRAP) was suspended 120 days. On USRAP’s resumption, the EO ordered the Secretary of State to favor refugee claims based on religious persecution but only if the individual was in the religious minority for their country of origin.

The courts responded to the EO with several findings and rulings. The Fourth Circuit recognized that Iraq, Iran, Libya, Somalia, Sudan, Syria, and Yemen are predominantly Muslim countries. For instance, it cited to the fact that the nationals of Iraq, Iran, Libya, Sudan, Somalia, Syria, and Yemen are respectively: 99 percent, 99.5 percent, 96.6 percent, 90.7 percent, 99.8 percent, 9.89 percent, and 99.1 percent Muslim. A Western District of Washington federal judge granted a temporary

restraining order (TRO), enjoining these EO provisions' enforcement.³ The Ninth Circuit denied a TRO stay, declining to rewrite the EO by limiting the TRO's scope. It referenced the elected branches as better equipped for that task.⁴

EO 13780

President Trump enacted a second EO in early March 2017: EO 13780, "Protecting the Nation from Foreign Terrorist Entry into the United States."⁵ It revoked and replaced the first EO. It reenacted the 90-day suspension of travel and transport of countries' nationals from Iran, Libya, Somalia, Sudan, Syria, and Yemen (eliminating Iraq this time). President Trump relied on 8 U.S.C. Sections 1182(f) and 1185(a), stating that unrestricted travel and transport of these countries' nationals would be "detrimental" to US interests. The explicit reasons given for this part of the EO included: reducing administrative burdens, enabling proper screening and vetting of foreign nationals, establishing adequate standards to stop foreign terrorists' entry, and countering entry of persons from those countries that would be "detrimental" to US interests.

The second EO disclosed that those countries' nationals deserved extra scrutiny given these countries' conditions presented "heightened threats." With more detail than the fact that these countries were state sponsors of terrorism, had terrorist groups compromising them, or were active conflict zones allegedly justified this enhanced scrutiny. Additionally, the risk of terrorism being exported from these countries to the US was "unacceptably high." Nationals of nearly 40 countries could enter the US under the Visa Waiver Program temporarily as tourists or for business without a visa.⁶ However, nationals of these six nations could not. To be fair, though, the Visa Waiver Program did not grant entry without a visa for nationals of or aliens who have visited Iraq or Syria, state sponsors of terror (Iran, Sudan, and Syria), or visitors to Libya, Somalia, and Yemen.⁷

As more specific support, the second EO noted Sudan's state sponsorship of terrorism since 1993

(Hezbollah, Hamas, al-Qaida, ISIS-linked terrorist groups active in the country). Two Iraqi refugees received terrorism convictions in January 2013. A Somalian had a terrorism conviction in October of 2014. No instances were provided for Iran, Libya, Sudan, Syria, or Yemen. More specifically, the second EO suspended entry for those outside the US on March 16, 2017 without a valid visa as of that date or as of January 27, 2017 (the date of the first EO). Legal permanent residents, dual citizens under passport from a non-banned nation, asylum seekers, or refugees already allowed to the US. Consular officers could issue waivers to individuals.

The second EO also suspended USRAP for 120 days and decreased refugee admissions by half, both of which also were included in the first EO. However, unlike the first EO, the second did not permanently ban Syrian refugees. The preferential treatment for religious minorities seeking refugee status was also absent from the second EO. Before the second EO, a Department of Homeland Security (DHS) Office of Intelligence and Analysis report became a public record. It disclosed that foreign-born individuals who became violent in the US gained this radicalization many years after entry. As such, increasing screening and vetting would not likely significantly reduce US terrorism. In addition, another DHS report disclosed citizenship as an unreliable indicator of terrorism. Finally, ten former administrative officials with keen knowledge in the area considered there to be no national security purpose for total bans on aliens' entry from certain countries.

President Trump's Underlying Intent

Early December of 2015, President Trump had uploaded the "Statement on Preventing Muslim Immigration" to his campaign website. It proposed completely denying Muslim entry to the US. As of February 2017, this statement remained on his website. In a January 27, 2017, interview, President Trump disclosed that the first EO's preference for religious minorities was directed toward saving Christians. On March 7, 2017, the DHS Secretary revealed the number of countries with questionable vetting procedures as in the teens. In addition, the

DHS Secretary disclosed that there were 51 predominately Muslim countries, and the travel and transportation ban only targeted six of them.

THE COURT PROCEEDINGS

Six American citizens with a family member seeking entry to the US from the targeted countries and three organizations representing Muslim clients (International Refugee Assistance Project, Hebrew Immigrant Aid Society, and Middle East Studies Association) brought this case. Four argued that immediate family members were having difficulty getting visas based on the second EO. They all contended that suspending entry prolonged separation from family members. In addition, they believed the anti-Muslim message from the second EO resulted in disparagement and exclusion to such an extent that some feared for their safety here. The three organizations contended they were suffering monetary damages from fighting the second EO and decrease in funding from reduced immigration on account of the second EO.

The plaintiffs wanted declaratory and injunctive relief against the first EO's enforcement. They argued violation of the First Amendment's Establishment Clause; Fifth Amendment's Due Process Clause (equal protection); Immigration and Nationality Act (INA) 8 U.S.C. Section 1101 – 1537; Religious Freedom Restoration Act, 42 U.S.C. Sections 2000bb to 2000bb-4; Refugee Act, 8 U.S.C. Sections 1521 – 1524; Administrative Procedure Act, 5 U.S.C. Sections 701 – 706. The same claims continued through the second EO's issuance.

The first district court found that some of the plaintiffs had standing to pursue the violations under the INA in denying them visas on the basis of nationality, and standing to pursue Establishment Clause violations. As the INA governed only the issuance of immigration visas, not travel or business visas, not all the claims could be adjudicated under

it. Under the Establishment Clause claim, the district court found a winning argument, irreparable injury if enforced, balancing of equities favoring the plaintiffs, and public interest in an injunction. The combination of factors led to a preliminary injunction, denying enforcement of the second EO.

Defense Counter

President Trump relied on his authority to exclude aliens under INA Sections 212(f) and 215(a)(1).⁸ He did have much authority under the INA language.⁹

In fact, “[w]henver the President finds that the entry of any aliens or of any class of aliens into the United States would be detrimental to the interests of the United States, he may by proclamation, and for such period as he shall deem necessary, suspend the entry of all aliens or any class of aliens as immigrants or nonimmigrants, or impose on the entry of aliens any restrictions he may deem to be appropriate.”¹⁰ In addition, “[u]nless otherwise ordered by the President, it shall be [illegal] for any alien to depart from or enter or attempt to depart from or enter the United States except under such reasonable rules, regulations, and orders, and subject to such limitations and exceptions as the President may prescribe”¹¹

Plaintiffs' Counter

They believed that the same INA barred discrimination based on nationality.¹² “[N]o person shall receive any preference or priority or be discriminated against in the issuance of an immigrant visa because of the person's race, sex, nationality, place of birth, or place of residence.”¹³

District Court's Decision

“Plaintiffs have shown a likelihood of success on the merits of their claim that the [s]econd [EO] violates [Section] 1152(a) but only as to the issuance of immigrant visas They have not shown a likelihood of success on the merits of the claim that [Section] 1152(a) prevents the President from barring entry to the United States pursuant to [Section] 1182(f), or the issuance of non-immigrant

visas, on the basis of nationality.”¹⁴ The constitutional claim was the underlying reason for the nationwide preliminary injunction, not this INA argument.

Defense Counter

The Establishment Clause claim was not able to have a verdict rendered on it. The Constitution’s Article III requirements of standing and ripeness had not been satisfied. Regardless, the consular non-reviewability doctrine barred judicial review of the claim.

COURT OPINION AND ANALYSIS

The Fourth Circuit declined to rule on the INA issue. Instead, the Establishment Clause claim had to be resolved, making the INA issue otherwise moot. The issue was whether the Constitution protects plaintiffs’ right to challenge an EO with elements of religious intolerance and discrimination. The Fourth Circuit believed the First Amendment’s Establishment Clause to be paramount. The federal government could not establish any religious faith and could not favor or disfavor certain religions over others. It ultimately affirmed the district court’s preliminary injunction with nationwide impact.

Standing

Under the Constitution’s Article III, Section 2, courts can hear only “cases” or “controversies.” This fact means that a litigant must have standing to bring a complaint.¹⁵ As such, the plaintiffs must show an injury (first) that is traceable to the defendant (second), and the injury likely can be redressed through a favorable decision (finally).¹⁶

Of these elements then, only the recognizable injury was in dispute. “An invasion of a legally protected interest . . . concrete and particularized . . . actual or imminent, not conjectural or hypothetical” had to be shown.¹⁷ The merits had to be disregarded in reaching this decision.¹⁸ As such, the court had to assume the second EO violated the First Amendment’s Establishment Clause.

Injury in Establishment Clause cases could be shown in many ways.¹⁹ Direct harm from what was establishment of religion would be sufficient proof.²⁰ Sunday closing legislation obviously economically injured merchants in Establishment Clause cases.²¹ Marginalization feelings were recognizable injuries for this type of case.²² The first plaintiff had an injury from personal contact with an alleged anti-Muslim religious establishment. First, his wife was barred entry, prolonging their living apart. Second, the second EO condemned his faith, making him feel marginalized. The injury had to be impending, not speculative.²³ Here, the 90-day suspension would prolong separation, an actual injury that was cognizable. In addition, the second EO did disparage foreign-born Muslims, forcing them to feel marginalized.

Plaintiffs could not raise others’ legal rights.²⁴ However, the plaintiffs here were raising their own rights. They were directly impacted. It was not only individuals seeking entry from overseas who felt the effects of the second EO. The Supreme Court had permitted US residents interested in foreigners’ entry to have standing.²⁵ Under all these standing tests then, the first plaintiff had prevailed. As such, no other plaintiff’s standing had to be considered.

Ripeness

The government relied on this argument: Because the second EO provided for waivers to be requested, the case could not be adjudicated until waiver denial. Thus, ripeness was in issue according to the government. For ripeness, the court had to weigh both issue fitness for judicial decision and hardship from denial.²⁶ Nevertheless, the court found no reason to consider either element as the challenge was facial. The second EO allegedly violated the Establishment Clause without regard to whether a waiver could be obtained or not. No uncertainties remained here. Also, denying judicial consideration would be undue hardship to the plaintiffs.

Because of the doctrine of consular non-reviewability, a decision not to issue a visa would not be judicially reviewable unless legislatively

allowed.²⁷ However, a constitutional claim had to be heard regardless of the doctrine.²⁸ As such, the doctrine of consular non-reviewability was inapposite here. While judicial deference to the executive branch on national security issues could be warranted, it could not be permitted where constitutionality is in question.²⁹

Establishment Clause

Prevailing on the merits' likelihood, irreparable injury, balancing, and public interest must be present for a preliminary injunction to be issued.³⁰ For the merits then, the district court asserted that, because the second EO was facially neutral regarding religion, the *Lemon* test was necessary.³¹ The government argued the *Mandel* test was warranted instead because it was more deferential and fit the immigration situation.³²

While *Mandel* should have been the starting point, the result was a distinction without a difference. It allowed for the exclusion of aliens under legislative prohibitions that would forbid their entry.³³ If "facially legitimate and bona fide" reason elements were present, then the courts would not look behind the EO to a First Amendment constitutional issue.³⁴ This rule of *Mandel*, applying to immigration issues, was supported in a subsequent Supreme Court case.³⁵ "Facially legitimate and bona fide" reason connoted a rational basis review.

The problem was that those cases referred to equal protection and not Establishment Clause claims. Rational review would be fine for the former but not for the latter.³⁶ Even though the political branches, legislative and executive branches, had significant authority over immigration issues, the courts still had to ensure constitutionality of the limits.³⁷ The *Mandel* test placed a burden on the plaintiffs to be carried.³⁸ Facial legitimacy equated to a valid reason.³⁹ "Bona fide" signified the government acting in good faith.⁴⁰ In fact, the "bona fide" requirement could require more judicial review.

The purported national security interest underlying the second EO was "facially legitimate." Absent bad faith allegations, the inquiry would end at this point

in favor of the government's position. But the plaintiffs represented that the second EO relied on national security interest reasons in bad faith as a façade for an anti-Muslim religious purpose. The numerous Trump campaign statements against Islam and the language regarding a proposal to ban Muslims from entering the US showed an intent. Hiding this intent behind targeting "territories" instead of Muslims directly was inapposite. The preference for religious minorities (other than Muslims then) in the first EO further illustrated an intent to disfavor Muslims, further evidenced through the designated countries being predominately Muslim. An adviser suggesting that President Trump wanted to find a legal reason to ban Muslims also additionally buttressed the bad faith. The second EO also resembled the first EO, which did not do anything to counter bad faith charges. The national security interest reasons were weak. The national security agencies were excluded from this decision process, and the DHS had stated the EOs would not effectively reduce the threat of terrorism. All these reasons together indicated bad faith. Because of bad faith, the court could then inquire into the true reasons for the EOs and could disregard facial legitimacy deference.

To review facially neutral actions, the *Lemon* test would work in determining the second EO's constitutionality. Actually, the "bona fide" element from *Mandel* and the constitutional questioning in *Lemon* did work well together. The question became whether the second EO had a religious motivation primarily instead of a national security promoting motivation. The *Lemon* test involved proving a secular legislative purpose, primary effect not promoting or inhibiting religion, and lacking excessive government entanglement with religion.⁴¹ To prevail, the government must show all elements.⁴² This proof was especially necessary in Establishment Clause cases such as here.⁴³ Only the first element was in issue for this case regarding the *Lemon* test.

The government had to demonstrate a secular purpose "genuine, not a sham, and not merely secondary to a religious objective."⁴⁴ Just any

secular purpose was not enough.⁴⁵ The primary purpose had to be secular.⁴⁶ From the viewpoint of a reasonable observer, the court found the second EO's primary purpose to be religious. It also found from the same perspective that President Trump showed an anti-Muslim intent on many occasions. The second EO was just an attempt for a more legal rendition of the first EO, both of which had anti-Muslim intents from the perspective of the reasonable observer according to the court. The reference to reviewing honor killings was considered to be another attempt to demean Islam and to show a religious-based primary purpose.

The national security interest was lacking. President Trump issued the first EO without ever consulting national security agencies. DHS reports contradicted the national security justification. The evidence to support the national security interest amounted to just two Iraqi immigrants and a Somalian refugee. The fact that the ban applied only to some predominately Muslim countries and that those targeted countries had terrorism issues would be relevant for the second part of the test but not for the first part of the test.⁴⁷ Here, the first part of the test entirely resolved the issue against the government. A national security interest could have been present. If so, it was secondary to the primary religious purpose. For Establishment Clause cases, more than just the text must be considered.⁴⁸ Whether a presumption of appropriate executive branch action that was not judicially reviewable attached was inapposite.⁴⁹ After all, constitutional limits still applied to immigration-related actions.⁵⁰

Campaign statements could be considered in interpreting the intent behind governmental actions.⁵¹ Contemporaneous statements could also be weighed.⁵² Any distinction between a candidate and the ultimately elected official was artificial. The inquiry was whether a reasonable observer would believe the candidate's statements to be evidentiary of the actions taken on election. For previous statements to be worth consideration as to government purpose, a substantial and specific connection must exist between it and the governmental action.

The second EO's purpose was to exclude individuals based on their religion. Thus, it failed the first part of the *Lemon* test. As such, the district court properly found the plaintiffs likely to win on the merits of the Establishment Clause claim. Too much religious animus motivated the second EO. Consequently, it would be deemed unconstitutional regardless of the level of scrutiny. Finding in favor of the plaintiffs on the merits automatically translated into finding irreparable injury without the issuance of an injunction. Losing First Amendment freedoms for any time was considered irreparable injury.⁵³

To support the issuance of the preliminary injunction, the balance of equities still had to be considered.⁵⁴ Also, the public interest had to be weighed. Both could be considered together, though, as the district court did. With regard to national security, the judiciary should not doubt the President's judgments.⁵⁵ "Any time a State is enjoined by a court from effectuating statutes enacted by representatives of its [constituents], it suffers a form of irreparable injury."⁵⁶

The court found that the President could not suffer irreparable injury, just because of representing constituents, on an EO's enjoinder. Because part of the second EO was likely unconstitutional, permitting it to become effective would inflict greater injury than the issuance of the injunction. Reference to national security interests did not counter all other injuries in balancing.⁵⁷ National security interests were compelling but did not guarantee balancing in favor of the government. In the end then, the injuries to the plaintiffs regarding the First Amendment's Establishment Clause violation would be greater without an injunction than to the government's national security interest should the injunction be granted.

Under this same reasoning, the public interest was in favor of the preliminary injunction. Protecting the constitutional rights of a few benefits all. Actual religious liberty necessitates government not favor or disfavor sects or religion v. non-religion.⁵⁸ The injunction promoted the highest level of public interest. All four parts of the preliminary injunction test were therein fulfilled.

Scope

Whether the injunction against enforcement should be nationwide or solely for the enumerated plaintiffs became the next question. The preliminary injunction “should be no more burdensome to the defendant than necessary to provide complete relief to the plaintiffs.”⁵⁹ Nationwide made sense as the plaintiffs were located all over the US. Also, nationwide injunctions ideally fit immigration issues⁶⁰ given Congress wanted uniformity in immigration rules.⁶¹ Establishment Clause constitutional violations affected more than the immediate plaintiffs, so national application was logical. The district court appropriately decided on a national injunction to provide complete relief.⁶²

Injunctions normally could not be issued against the President in executing Congressional legislation.⁶³ In fact, generally, the President could not be judicially barred from completing official duties.⁶⁴ Thus, the district court did improperly issue the injunction against the President, which was then lifted. Otherwise, the injunction remained in full effect.

PASSENGER TRANSPORTATION IMPLICATIONS

Moving forward, bans on the movement of travelers and immigrants can be enacted and be constitutional. The key, though, is that the ban would have to be facially legitimate and bona fide. If so, courts would give significant deference to the other branches’ decisions and likely uphold them under rational basis review.

However, with bad faith and the Establishment Clause also implicated, the reasons underlying the decision would then be reviewed. They would have to be primarily secular for the ban to survive judicial scrutiny. By the way here, the fact an injunction could not be issued against the President himself was an inconsequential finding. Indeed, the second EO’s orders were enjoined from being enforced by anyone.

Given President Trump’s possible anti-Muslim campaign rhetoric that the court referenced in its decision, he would face significant legal difficulties in ever implementing EO travel or immigration bans effectively. If this case established any legal certainties, it was this one. However, if the Executive Branch can establish a bona fide national security case, it may be able to secure judicial support of travel restrictions that are measured and in response to specific demonstrated risks.

(Endnotes)

¹ No. 17-1351, 2017 U.S. App. LEXIS 9109 (4th Cir. 2017).

² 82 Fed. Reg. 8977 (Jan. 27, 2017).

³ Washington v. Trump, No. C17-0141JLR, 2017 U.S. Dist. LEXIS 16012 (W.D. Wash. 2017).

⁴ Washington v. Trump, 847 F.3d 1151 (9th Cir. 2017) (per curiam).

⁵ 82 Fed. Reg. 13209 (Mar. 6, 2017).

⁶ 8 U.S.C. Section 1187(a).

⁷ 8 U.S.C. Section 1187(a)(12). US Department of State (2016), “US Visa Waiver Program,” [Online]. Available: <https://www.dhs.gov/visa-waiver-program>. Created: 4/6/16. Accessed: 5/30/17. US Department of Homeland Security (2016), “DHS Announces Further Travel Restrictions for the Visa Waiver Program,” Available: <https://www.dhs.gov/news/2016/02/18/dhs-announces-further-travel-restrictions-visa-waiver-program>. Created: 2/18/16. Accessed: 5/30/17.

⁸ 8 U.S.C. Sections 1182(f) and 1185(a)(1).

⁹ 8 U.S.C. Sections 1182(f) and 1185(a)(1).

¹⁰ 8 U.S.C. Section 1182(f).

¹¹ 8 U.S.C. Section 1185(a)(1).

¹² 8 U.S.C. Section 1152(a)(1)(A).

¹³ 8 U.S.C. Section 1152(a)(1)(A).

¹⁴ International Refugee Assistance Project v. Trump, 2017 U.S. Dist. LEXIS 37645 at 10 (W.D. Wash. 2017).

¹⁵ Clapper v. Amnesty International USA, 568 US 398 (2013).

¹⁶ Lujan v. Defenders of Wildlife, 504 US 555, 560-61 (1992).

¹⁷ Spokeo, Inc. v. Robins, 136 S. Ct. 1540, 1548 (2016).

¹⁸ Columbia v. Heller, 554 US 570 (2008).

¹⁹ *Arizona Christian School Tuition Organization v. Winn*, 563 U.S. 125, 129 (2011).

²⁰ *Winn*, 563 US at 129.

²¹ *McGowan v. Maryland*, 366 US 420, 430-31 (1961).

²² *McCreary County v. ACLU of Kentucky*, 545 US 844, 860 (2005).

²³ *Whitmore v. Arkansas*, 495 US 149, 158 (1990).

²⁴ *Allen v. Wright*, 468 US 737, 751 (1984).

²⁵ *Kerry v. Din*, 135 S. Ct. 2128, 2131 (2015) (US citizen fighting denial of spouse’s visa application); *Kleindienst v. Mandel*, 408 US 753, 756 (1972) (US scholars bucking temporary nonimmigrant visa denial to Marxist Belgian journalist); *Mandel*, 408 US at 772 (potential audience hoping to benefit from lectures providing standing) (Douglas, J., dissenting).

²⁶ *National Park Hospital Association v. Department of Interior*, 538 US 803, 808 (2003).

²⁷ *Saavedra Bruno v. Albright*, 197 F.3d 1153, 1159 (DC Cir. 1999).

²⁸ *Din*, 135 S. Ct. at 2132

²⁹ *INS v. Chadha*, 462 US 919, 943 (1983).

³⁰ *Winter v. Natural Resource Defense Council, Inc.*, 555 US 7, 20 (2008).

³¹ *Lemon v. Kurtzman*, 403 US 602 (1971).

³² *Kleindienst v. Mandel*, 408 US 753 (1972).

³³ *Boutilier v. INS*, 387 US 118, 123 (1967).

³⁴ *Kleindienst v. Mandel*, 408 US 753 (1972).

³⁵ *Fiallo v. Bell*, 430 US 787 (1977).

³⁶ *Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 US 520, 532 (1993).

³⁷ *Zadvydas v. Davis*, 533 US 678, 695 (2001).

³⁸ *Mathews v. Diaz*, 426 US 67, 82 (1976).

³⁹ *Din*, 135 S. Ct. at 21 40-2141 (Kennedy, J., concurring in the judgment) (visa denial “facially legitimate” where statute cited in support of the denial).

⁴⁰ *Din*, 135 S. Ct. at 2140-2141 (Kennedy, J., concurring in the judgment) (sufficiently alleging visa denial in bad faith would permit court to inquire whether the stated statutory basis formed the actual denial reason). “[Where] fragmented Court decides a case and no single rationale explaining the result enjoys the assent of [a majority], the Court [ruling] may be viewed as that position taken by those Members who concurred in the judgments on the [minimum] grounds.” *Marks v.*

US, 430 US 188, 193 (1977). Justice Kennedy’s opinion establishes the minimum grounds for the Court’s finding in *Din* and consider it to be the controlling opinion.

⁴¹ *Lemon*, 403 US at 612-613.

⁴² *Walz v. Tax Commission of the City of New York*, 397 US 664, 674 (1970).

⁴³ *Edwards v. Aguillard*, 482 US 578, 583 (1987).

⁴⁴ *McCreary*, 545 US at 864.

⁴⁵ *Santa Fe Independent School District v. Doe*, 530 US 290, 308 (2000).

⁴⁶ *Edwards*, 482 US at 594.

⁴⁷ *Lynch v. Donnelly*, 465 US 668, 692 (1984).

⁴⁸ *Board of Education of Kiryas Joel Village School District v. Grumet*, 512 US 687, 699 (1994) (“[O]ur [Establishment Clause] analysis does not end with the text of the statute at issue.”)

⁴⁹ *US v. Chemical Foundation, Inc.*, 272 US 1 (1926).

⁵⁰ *INS v. Chadha*, 462 US 919, 943 (1983).

⁵¹ *California v. US*, 438 US 645, 663-664 (1978).

⁵² *Village of Arlington Heights v. Metropolitan Housing Development Corp.*, 429 US 252 (1977).

⁵³ *Elrod v. Burns*, 427 US 347, 373 (1976).

⁵⁴ *Weinberger v. Romero-Barcelo*, 456 US 305, 312 (1982).

⁵⁵ *Department of the Navy v. Egan*, 484 US 518 (1988).

⁵⁶ *Maryland v. King*, 567 US 1301, 1303 (2012) (quoting *New Motor Vehicle Board of California v. Orrin W.*, 434 US 1345, 1351 (1977)).

⁵⁷ *US v. Robel*, 389 US 258, 264 (1967).

⁵⁸ *School District of Abington Township v. Schempp*, 374 US 203, 305 (1963) (Goldberg, J. concurring).

⁵⁹ *Madsen v. Women’s Health Center, Inc.*, 512 US 753, 765 (1994).

⁶⁰ *Texas v. US*, 809 F.3d 134, 187-88 (5th Cir. 2015), *aff’d* by 136 S. Ct. 2271 (2016).

⁶¹ *Arizona v. US*, 567 US 387 (2015).

⁶² *Madsen*, 512 US at 765.

⁶³ *Mississippi v. Johnson*, 71 US 475, 501 (1866).

⁶⁴ *Franklin v. Massachusetts*, 505 US 788, 802-803 (1992) (opinion of O’Connor, J.).

BIOGRAPHY

Professor Kevin A. Diehl, JD, CPA, is a tenured professor at Western Illinois University—QC. He has had more than 30 manuscripts published in leading academic journals and is a noted writer for reviews of important legal cases. E-Mail: ka-diehl@wiu.edu

EARLY CAREER JOB CHOICE IN LOGISTICS: COMPARING SHIFTS IN ATTRIBUTE IMPORTANCE BETWEEN INTERNSHIP AND FULL-TIME ROLES

**Michael S. Garver
Zachary Williams
Richard L. Divine
Sean P. Goffnett
Central Michigan University**

**Connor F. Davis
Independent**

ABSTRACT

Maximum difference scaling was used to analyze the importance logistics students attach to 17 job attributes for internships as well as for full-time, entry-level positions. Significant differences in importance were found on nine of the 17 attributes tested. *Room for advancement* was the most important criterion for full-time positions while *atmosphere/work environment* was most important for internships. Implications for practitioners, academics and students are discussed. It is believed the results of the current study will provide useful insight to logistics employers to assist them in developing more attractive, entry-level job and internship opportunities and help them communicate more effective recruiting messages.

INTRODUCTION

Human resources is an essential part of how a firm competes and delivers on its mission, as it ensures the right people, with the right skills, are in the right positions at the right time to achieve the right level of performance. In fact, research has shown that a successfully managed supply chain with a motivated and knowledgeable workforce supporting it can be a source of competitive advantage that enhances supply chain performance (Ellinger and Ellinger, 2013). Unfortunately, many logistics firms are dealing with the very difficult task of attracting and retaining skilled supply chain professionals (Dubey & Gunasekaran, 2015; Leon and Uddin, 2016; Partida, 2014). As a result, a number of experts have been calling for further research on supply chain talent (e.g., Cottrill, 2010; Garver, Williams and Taylor, 2011).

Logistics education, including internships, plays an essential role in business (Knemeyer & Murphy, 2002). Undergraduate logistics programs produce graduates with fundamental knowledge and skills in

logistics and supply chain management and they have potential to satisfy employer needs and expectations. It is critical that logistics education programs produce graduates who are equipped with the requisite skills needed for gainful employment (Goffnett et al., 2012). Seeing that a major challenge facing many firms is how to attract and retain talent, it is important for both practitioners and educators to know job seeker preferences as it assists with attracting the best possible talent to the logistics and supply chain profession.

Some of the difficulty in attracting a supply chain workforce may be attributed to the lack of information on job selection factors. More specifically, much of the supply chain talent literature focuses on skills needed among employers from job applicants. While the stream of supply chain skills research is imperative to talent management, it does not address a primary question: what is important to the supply chain job seeker? Understanding of job seeker needs assists in talent management, as firms can use this information to make their internships and entry level positions better aligned to the needs of university logistics students. Subsequently, these

students will be more attractive to the job market. In addition this knowledge can help firms improve their message strategy, which should allow them to communicate more meaningful and persuasive messages to their recruiting targets.

LITERATURE REVIEW

In recent years, practitioners and academics alike have demonstrated an increased interest in human resources related aspects in supply chain related literature. For example, there has been increased research attention in areas such as talent acquisition, career paths, and managing supply chain knowledge and skills (Cook, Gibson, & Williams, 2009; Ellinger and Ellinger, 2013; Goffnett et al, 2012; Langley et al, 2015). The increased interest is not surprising given that competitive disadvantage plagues organizations that lack adequate supply chain professionals (Gibson et al, 2013). The following literature review briefly summarizes logistics career research in addition to logistics internships.

Logistics Career Research

Most of the career-related research in SCM focuses on skills needed and desired among employers. For example, studies have found that critical skills for logisticians include problem solving, communication, planning, ability to learn, decision making, teamwork, social skills, time-management, motivation/leadership, and customer service (Cook and Gibson, 2001; Gammelgaard and Larson 2001; Myers, Griffith, Daugherty, and Lusch, 2004; Murphy and Poist, 2007; Ellinger and Ellinger, 2013; Butcher, Kovacs, Tatham, and Wu, 2017). Interestingly, research has also noted the gaps in skills desired by employers and those available among logistics candidates (Goffnett, et al., 2017). Moreover, much of this logistics career research is grounded in descriptive comparisons among employers and candidates (Keller and Ozment, 2009). This has resulted in calls for additional insights using advanced research techniques (Keller and Ozment, 2009).

A smaller stream of logistics career research has identified factors in job choice. Gibson and Cook (2003) found that students place importance on factors such as organizational culture, advancement, and salary for entry-level positions. Similar results were found by Knemeyer and Murphy (2004). While these factors have been deemed critical by entry-level logistics job-seekers, employers have been called upon to develop career programs that align with individual expectations (Maloni, Scherrer, Campbell, and Boyd, 2016; Maloni, Scherrer, and Mascaritolo, 2016).

Internships

Interestingly, there is a paucity of research that evaluates the importance of job characteristics expressed by students during the internship process. Internships, for example, provide students a chance to gain working knowledge and on-the-job training for a profession while in college. Benefits for student interns include improved job-related skills, higher job satisfaction and higher starting salaries (Weible, 2010). Other benefits are increased career opportunities, quicker job offers, faster promotions and enhanced organizational commitment (Clark, 2003; D'Abate et al., 2010; Gault et al., 2010; Hyman-Parker & Smith, 1998). Students that apply learned concepts in real-world settings improve upon the skills needed to be successful in the workplace. Moreover, internships provide direction in student learning and ultimately, career choice.

Internship programs offer numerous benefits to employers. Interns can enhance organizational knowledge and innovation by providing an influx of new skills and fresh ideas (Sides & Mrvica, 2007). Internships give employers a chance to *test-drive* potential employees in the workplace without having to make the commitments associated with hiring regular employees. This *try-before-you-buy* approach has been shown to greatly improve the likelihood of making a successful hiring decision over even the most rigorous interview-based selection process (Woodward, 1998). In addition, internship programs offer organizations the opportunity to develop connections with universities by building mutually beneficial relationships. These

relationships allow organizations to gain access to reliable sources of quality talent, which can improve the efficiency and effectiveness of their recruiting process. Universities benefit through improved placement rates, better assessment data, input from industry professionals on their curriculum, and opportunities for grants and other financial support from satisfied employers.

In highly competitive labor markets such as logistics, some believe internships are almost a necessity if a company hopes to attract quality talent (Pianko, 1996). Many companies make full-time job offers to their best interns before those students have even started their senior year of college in order to take them off the market. As a result companies who forego internships and wait to recruit graduating seniors for full-time positions are likely to find the best prospects have already accepted other positions.

Interestingly, while internship programs promise positive outcomes, limited logistics research has explored internship programs. Knemeyer and Murphy (2001) gathered input from employers on logistics-related internships. The conclusions drawn from the study suggest that students need internship experiences in order to gain “early preview” with employers. In other words, employers are using internships to find and recruit full-time employees.

In another study, Knemeyer and Murphy (2002) surveyed both intern employers and interns. The results find that interns seek experiences more focused on intrinsic values (experience; skill improvement) over extrinsic values (compensation). Moreover, the researchers conclude that dissatisfaction among interns arises when expectations on the internship experience are not met. In turn, this requires interns and employers to ensure expectations for the experience are soundly understood. Lastly, and paramount to the current study, this research suggests that undergraduates will place importance on different choice attributes when evaluating internship opportunities compared to evaluating full-time opportunities. As a potential solution to becoming an intern employer of choice,

research suggests employers spend time developing great experiences, both internally and externally (Cook, et al., 2009).

Literature Summary and Research Question

There is an apparent need for more research that explores logistics job characteristics and the decision process or mechanism for choosing what is most important in logistics jobs at various levels of experience (e.g., intern, full-time). Given the high-level of competition that exists in the marketplace for recruiting high-quality logistics talent, to be successful in their recruiting efforts organizations need to have an understanding of what is important to job seekers. Most of the logistics related research on talent focuses on internal (corporate) perspectives of the skills employees need for success.

Thus, the primary research question becomes: what is important in job choice for logistics interns and logistics entry-level, full-time employees? In an effort to answer this primary research question, the current study seeks to determine the importance students place on different attributes of a logistics internship as well as the importance of those same attributes for a full-time logistics position. The research method used to collect and analyze data for this study will be maximum difference scaling (MD).

RESEARCH METHOD

Maximum difference scaling will first be introduced, followed by the development of different employment attributes in two different situations, a logistics internship and a full-time position. Then, the process for data collection will be discussed.

Maximum Difference Scaling (MD)

Maximum difference scaling is a relatively new research method that is now being implemented by logistics researchers (Anderson et al., 2011; Coltman et al., 2011; Garver, et al., 2010). MD questions are determined by implementing an experimental design plan (Coltman et al., 2011). For each MD question, the respondent is asked to

choose the most important and least important attributes from typically four or five attributes. Typically, MD exercises contain between 7 and 15 MD questions.

Before MD, logistics researchers often used *stated importance ratings* to measure attribute importance (Garver, et al., 2010). Implementing *stated importance ratings*, researchers ask survey respondents to rate the importance of each attribute with responses ranging from “not at all important” to “very important.” Although commonly used in practice, this technique has major limitations (Garver, 2003; Garver, 2009). The most significant limitation of stated importance ratings is that they often display a lack of discriminating power between attribute ratings (Cohen & Orme, 2004). It is not uncommon to find that most attributes are “very important.” Chrzan & Golovashkina (2006) examined six different methods for determining attribute importance, and their research study concluded that MD is the best method available for determining attribute importance.

From a researcher’s perspective, the most important advantage of MD is that the data displays much higher variance with more discriminating power than other methods (Anderson et al., 2011; Garver, et al., 2010). In part, this occurs because MD is able to capture complicated tradeoffs in which participants *must* make difficult choices. Simply put, respondents can’t respond that every attribute is important, but instead, they have to select the “most” and “least” important attributes. Consistent with reality, respondents can’t have it all, and therefore, must make choices about what is truly most important. Finally, MD eliminates *scale use bias* (Cohen & Orme, 2004). For these reasons, MD was implemented in this research study.

MD Attributes

Attributes are defined as those critical factors for logistics students when making employment decisions either for an internship or a full time position in logistics. The researchers first examined the literature and found a number of different

attributes that had been examined in previous logistics research studies. After a thorough review of the literature, the researchers selected relevant attributes and then refined these attributes to be more appropriate for the logistics students in this study. Then, in-depth interviews and focus groups were conducted with logistics students to further refine the wording of the attributes. At the conclusion of this process, the researchers developed a list of 17 career choice related attributes to be examined in this study.

MD Situations

Recently, logistics researchers have introduced examining customer preferences within different scenarios and situations (Garver, 2016). Drawing insights from customer value theory, customers will likely have different preferences or place different levels of importance upon attributes within different situations (Woodruff and Gardial, 1996; Woodruff, 1997). For example, Garver (2016) implemented MD to model shipper preferences in different transportation situations. Garver (2016) found that customers had significantly different preferences in different shipping situations. In the current research study, the researchers examine logistics students’ attribute importance scores for two different employment situations, including a logistics internship and a logistics full-time position.

Consistent with prior logistics research involving different situations (Garver, 2016), priming techniques (i.e., reading and imagining a scenario) were used to put the respondents mentally in a realistic situation. First, respondents were given a situation in which they were looking for a logistics-related internship position. In this situation, the respondents were asked to determine what attributes were “most important” and “least important” when choosing a logistics internship position. Each respondent answered a total of 11 MD questions in regards to a logistics internship. For each MD question, five attributes were displayed.

At the completion of the internship situation MD exercise, the respondents were then primed for a

different scenario. In this new situation, respondents were looking for a full time logistics-related position. Once survey respondents were mentally primed to look for a full-time logistics position, the respondents were asked to determine which attributes were “most important” and “least important” when choosing a full time logistics position. Each logistics student answered a total of 11 MD questions in regards to a full-time logistics position. For each MD question, five attributes were included again in each question.

Data Collection Research Sample

An email invitation was sent to all students enrolled in all market research courses at a large Midwest University. This course is required for all marketing and logistics students. This set of students was then used to identify a subset of logistics majors. Data collection took place during both the Fall (October) and Spring (February) school semesters. Because many students have multiple majors, the researchers employed a screening question which asked students about the primary field of interest they were more interested in pursuing. Only those students who selected “logistics” as their primary field of interest were included in this study. Initially, responses from 112 logistics students were collected. After data cleaning, a number of surveys were deemed to be incomplete or the quality of the responses was in question. A number of quality checks were undertaken to ensure the quality of the sample. The final sample resulted in 100 quality responses. Following the protocol of Armstrong and Overton (1977) for non-response bias, our analysis suggested that there were no significant differences between early and late respondents.

RESEARCH RESULTS

Characteristics of the sample will be described first, followed by a discussion of the MD results in the two different situations (internships and full time positions). To examine if logistics students have different preferences across the different hiring situations, paired samples T-tests were conducted.

Sample Characteristics

The sample contains logistics students that are predominately male (shown in Table 1). For example, 68% of the sample is male whereas only 32% of the sample is female. The majority of students had previously completed a logistics internship (66%). For those students with a logistics internship, most of the students either had a transportation internship (33%) or an operations internship (26%), followed by either a purchasing (17%) or a planning (17%) internship.

**TABLE 1
SAMPLE DESCRIPTION**

Question	Responses	Percent
Gender	Male	68%
	Female	32%
Internship	No	34%
	Yes	66%
Role	Purchasing	17%
	Operations	26%
	Planning	17%
	Transportation	33%
	Other	7%

MD Results

Hierarchical Bayes within Sawtooth Software’s Lighthouse Studio (9.0) was used to analyze the MD data. The results from the Hierarchical Bayes analysis were rescaled so that the importance scores for each attribute would sum to 100 points, with higher scores reflecting greater importance for the attribute. The attribute importance scores should be interpreted in relative, not absolute, terms.

Internship Situation

Table 2 contains the MD mean scores for the attributes in an internship situation. For the internship situation, the highest importance scores were for the following attributes:

- Atmosphere / Work Environment (12.72)
- Room for Advancement (12.35)
- Culture fit with personality (10.75)
- Meaningful work (10.09)

- Work aligned with desired major (9.62)
- Interesting work (9.23)

The lowest importance scores were for the following attributes:

- Amount of work (1.68)
- Onboarding process (1.21)
- Social activities after work (.95)
- Size of firm (.30)
- Dress code (.06)

Full-Time Job Situation

Table 3 contains the MD mean scores for the attributes in the full time job situation. For the full time job situation, the highest importance scores were for the following attributes:

- Room for Advancement (15.08)
- Atmosphere / Work Environment (11.67)
- Culture fit with personality (11.23)
- Compensation (10.75)
- Meaningful work (8.41)

The lowest importance scores were for the following attributes:

- Amount of work (1.91)
- Onboarding process (1.40)
- Social activities after work (.52)
- Size of firm (.50)
- Dress code (.05)

Comparing Attribute Importance Scores: Internship vs. Full-Time

Depending on the attribute, there are some differences in their absolute values as well as their relative rank order of importance. To determine if a significant difference exists between the same attributes in different situations (i.e., internship vs. a full time job), paired sample T-tests were employed (see Table 4).

Results from paired sample T-tests suggest that there are statistically significant differences for nine

TABLE 2
ATTRIBUTE IMPORTANCE SCORES FOR A LOGISTICS INTERNSHIP

Attribute	Importance
Atmosphere / Work Environment	12.72
Room for Advancement	12.35
Culture fit with personality	10.75
Meaningful work	10.09
Work aligned with desired major	9.62
Interesting work	9.23
Compensation	7.90
Relationship with Supervisor	6.99
Reputation of firm	5.41
Level of stress	4.04
Location of firm	3.92
Variety of work	2.76
Amount of work	1.68
Onboarding process	1.21
Social activities after work	.95
Size of firm	.30
Dress code	.06

TABLE 3
ATTRIBUTE IMPORTANCE SCORES FOR A LOGISTICS FULL TIME POSITION

Attribute	Attribute
Room for Advancement	15.08
Atmosphere / Work Environment	11.67
Culture fit with personality	11.23
Compensation	10.75
Meaningful work	8.41
Interesting work	7.60
Relationship with Supervisor	7.39
Reputation of firm	5.68
Work aligned with desired major	5.65
Level of stress	4.85
Location of firm	4.57
Variety of work	2.73
Amount of work	1.91
Onboarding process	1.40
Social activities after work	.52
Size of firm	.50
Dress code	.05

of the 17 attributes, with the most extreme differences being detected for the most important attributes. For

example, “room for advancement” is most important for full time positions, yet is significantly lower for internships. “Compensation” is significantly more important for full time positions as compared to internships.

In contrast, logistics students pursuing internships place significantly more importance on the “atmosphere / work environment,” “meaningful work,” “interesting work,” and “work aligned with their desired major.”

DISCUSSION

The paired T-Test revealed nine significant differences between the career pursuits of internship positions versus the pursuit of full-time positions. For the discussion, only the significant differences will be discussed. As previously noted, the largest

differences in importance between the two career choices resides with the higher importance variables.

Room for Advancement

Not surprisingly, full-time career seekers place more emphasis on room for advancement. While it is still important to interns, it is far and above the most important attribute for the full-time group. As their careers begin, full-time job seekers clearly want a path for advancement. Organizations that are seeking talent should note that developing and promoting programs that allow the work force to advance is clearly beneficial. As an example, leadership development style programs have grown in popularity with supply chain related careers in recent times. In addition to creating advancement style programs, clearly communicating how they work, what is expected, and the timeframe are likely critical for implementation. While this is most important for full-time positions, employers may also want to consider such advancement with internship programs as well. This may be more realistic with longer term internship positions (ex: co-ops; 6-

TABLE 4
PAIRED SAMPLES T-TESTS BETWEEN INTERNSHIP
AND FULL TIME POSITIONS

Attribute	Internship	Full Time	P Value
Room for Advancement	12.35 (2)	15.08 (1)	.000**
Atmosphere / Work Environment	12.72 (1)	11.67 (2)	.000**
Culture fit with personality	10.75 (3)	11.23 (3)	0.24
Compensation	7.90 (7)	10.75 (4)	.000**
Meaningful work	10.09 (4)	8.41 (5)	.000**
Interesting work	9.23 (6)	7.60 (6)	.000**
Work aligned with desired major	9.62 (5)	5.65 (9)	.000**
Relationship with Supervisor	6.99 (8)	7.39 (7)	0.241
Reputation of firm	5.41 (9)	5.68 (8)	0.399
Level of stress	4.04 (10)	4.85 (10)	.027*
Location of firm	3.92 (11)	4.57 (11)	0.161
Variety of work	2.76 (12)	2.73 (12)	0.898
Amount of work	1.68 (13)	1.91 (13)	0.135
Onboarding process	1.21 (14)	1.40 (14)	0.321
Social activities after work	.95 (15)	.52 (15)	.014*
Size of firm	.30 (16)	.50 (16)	.048*
Dress code	0.06 (17)	0.05 (17)	0.05

(#) indicate the rank order of importance

*statistically significant at a p value <.05

**statistically significant at a p value <.01

month internships). Academics can assist here. Working with students while on campus to explain advancement programs and timing can help set expectations for students. Finally, students should learn about various advancement programs from employers. Some leadership development programs in SCM can last up to four years as employer's cycle students through major divisions and internal functions. Developing a clear understanding that advancement can take time is a critical aspect to success in the career.

Atmosphere / Work Environment

This is relatively important for both groups. However, it is significantly more important for interns than it is for full-timers. This can partly be explained by the assumed lack of experience that interns exhibit. For many students, the internship is the first step into a

corporate setting. Without knowing what this environment may be like, it is an area of critical importance.

As the war for talent in SCM continues, practitioners should note the importance of this attribute, particularly for interns. Many firms have started to put forth intern programs that create a fun, happy, collaborative environment for interns. Examples of initiatives include Intern Olympics (both internal and external with other firms), travel opportunities, charitable event participation, and after work gatherings, among others. Ultimately, any of these programs create experiences for interns that develop a sense of belonging with the firm. Additionally, many firms that practice these types of initiatives also use internships for full-time recruiting, whereby they offer their interns full-

time opportunities before the end of the internship period. Additionally, millennials are entering the workforce in entry-level positions in many cases having experienced these fun, exciting, and unique internship experiences. Their expectations for full-time employment therefore may not fit with the reality of the corporate cultures that they will eventually join. Firms should be cognizant of the expectations that college grads may have when entering the full-time workforce and try to find ways to bridge the gap between the internship experience and those of full-time employment. For students, there are multiple implications. First, working toward an understanding of the type of work environment that fits their individual personality is key. For example, working in operational roles, such as a transportation terminal or a distribution center is much different than working in a corporate purchasing role. Second, students should understand the work environment for internships may or may not be similar in future roles. For example, some of the add-on special events designed for interns may or may not be available for full-time employees. It is advisable for students to ask those types of questions (comparing internship roles vs. full-time roles) of an employer. Academics can also assist in this process by highlighting differences and/or similarities with internship and full-time work environments.

Compensation

Not surprisingly, compensation is significantly more important for full-time opportunities compared to internships. It is likely that with the internship situation, students are seeking experience more than pay. Further, some internships are unpaid and yet are still filled with students year after year. When a student makes the next step toward the SCM career and looks for a full-time career, compensation becomes much more salient.

Practitioners can work on developing competitive compensation plans. Additionally, taking time to clearly communicate the total compensation package, including insurance, retirement plans, and more, are important. It is a strong possibility that students may have limited knowledge on those

additional compensation areas. This is also important for academics. Providing an outlet to help students understand all the factors in a compensation plan is an important role. Students have very limited resources to understand these areas and may need additional help. Finally, for compensation transparency practitioners may want to work with academics for compensation benchmarking data. Likewise, academics can help provide value to practitioners by gathering compensation data for interns and full-time employees.

Meaningful and Interesting Work

The results indicate that each of these variables are more important to the intern than to the full-time job seeker. Both of these variables may very well reside from internship stereotypes whereby student myths develop on “getting coffee” and “making copies”. As students seek internships, they want to make sure that they are contributing actual work value (meaningful) and engaging in work that is stimulating (interesting). This has important implications for students, firms, and academics. For students, it is important to understand that internships can involve initiatives that are somewhat less glamorous. For example, a manufacturing firm may hire summer interns to help with inventory counting. This could involve long hours in less than desirable work environments. This is where academics can help. In the University setting, academics can work with the potential interns to help set expectations. Further, academics can help students understand the meaning and importance in tasks that at face value, seem lackluster. Firms can additionally sell their opportunities here as well. Developing programs that interns engage in and letting them understand the importance is key. For example, many firms develop a large-scale project for an intern to work on during the internship. This project is in addition to day-to-day activities. The firm can sell the importance of the project to the intern. In addition, firms can work with interns to develop the project collaboratively to ensure the project aligns with the interns’ personal interest. Frequently, these types of programs result in presentations to upper management, which helps to signal importance.

Work Aligned With Desired Major

There are numerous majors that fall under the supply chain umbrella at universities. This can include procurement, operations management, supply chain, transportation, logistics, and marketing, among others. Students often sign up for majors that they think they are going to appreciate and enjoy. However, textbook and classroom environments can be drastically different from real work environments. As such, students likely want to try a practical work environment that aligns with what they believe is their career interest (i.e., major). Importantly, academics and practitioners can align to make this easier for interns. Developing realistic job previews, case studies that mimic work environments, and guest speaking opportunities can all help educate students on what the reality of the work involves.

Level of Stress

This was more important for full-time seekers. This may be attributed to students learning about the stress of the career during an internship. For example, if a student worked in a production environment during an internship, he/she likely learned the importance of keeping production flowing, which is often stressful. Thus, development of understanding on workplace stress likely becomes more important as the intern transforms into a full-time job seeker. Again, practitioners and academics can coordinate efforts to develop realistic job previews. This can include a realistic expectation on the stress involved with the job.

Social Activities After Work

Outside activities are more important for interns. It is likely this is due to lack of experience in work environments. As interns seek that first career-related experience, they look for the sense of belonging with a firm and in the career. Outside work situations provide these types of opportunities for students. This aligns with the notion for firms employing interns to develop situations outside of work for interns.

Size of Firm

This attribute is more important to full-time job seekers. This could be an artifact of the greater importance that room for advancement has for full-time job seekers, since larger firms are likely to have more advancement opportunities. Alternatively, this is could be due to experience gained from an internship. When comparing internship and full-time employment, it is more likely that an intern be employed by a small/medium firm than a full-time employee. Smaller firms may be able to afford an intern, but may not be able to bring on full-time employees often. As a result, interns have opportunities with smaller firms, which does influence them as their career search starts.

It is likely that many universities are skewed toward larger firms. Case studies in class, businesses in the news, are often used to highlight class learning. It is likely that these types of learning opportunities are skewed toward firms (brands) that students know and can relate to. Additionally, larger firms are likely to have more refined recruiting and talent management programs. Specifically, larger firms are likely to have many more resources to devote to recruiting.

It is important for academics to provide understanding to students on small to medium sized firms as well. This is critically important in the SCM career path, as many transportation providers are small operations. All sized firms have advantages and disadvantages and those would be important to highlight for career choice. Academics can coordinate with practitioners to highlight small/medium size firm opportunities. This can be critical as these smaller firms have limited recruiting budgets. Further, this can be very important for universities that reside in remote geographic locations, whereby the local business community is primarily small business.

RESEARCH LIMITATIONS

As with any research study, there are research limitations that need to be addressed in future research. For example, the sample size of 100 is

adequate but a larger sample size is always desired. Furthermore, the logistics students all come from one university. Future research should try to replicate this study looking across a number of different universities who have leading edge logistics programs.

As with any research method, MD has limitations that are important to note. The most significant limitation is the required time and effort that respondents have to expend to answer the questions. Chrzan and Golovashkina (2006) found that MD took the most time of any attribute importance methodology. Respondents may also feel that MD choices are redundant, where some respondents will feel that they have already answered the same question repeatedly. As a result, it is easy to “burn out” respondents, with the result being low quality responses. There are quality measures delivered with MD results that can detect low quality responses, but it is still a limitation.

MD shares the same limitation as other stated research techniques, where respondents overstate or understate the importance of some attributes relative to actual decisions (Garver, 2003). For example, price may be underrated in importance in a research context when compared to spending money in an actual purchase. More specifically to this study, compensation is similar to price in that it addresses money, thus it could also be underrated in this study as well. Even with these limitations, the researchers have confidence in the findings.

FUTURE RESEARCH

We suggest that future research employ conjoint analysis to examine how logistics students make career choices. Choice based conjoint analysis is a likely research method to be employed as it is the most popular choice based research method to examine how respondents make choices. Logistics researchers have not widely used conjoint analysis research methods, but logistics researchers have called for more research using these methods (Garver et. al., 2012). Conjoint analysis is typically used with customers and examining how they make

product or service choices, yet the research technique would work equally well in the context of respondents making career choices.

Likewise, Garver et. al. (2012) suggest that logistics researchers should also think about employing adaptive conjoint analysis for situations where respondents might demonstrate choices that possess “must have” or “must avoid” performance levels, similar to lexicographic decision making models. For example, it is not hard to imagine that certain logistics students would not accept job offers if the salary is below a certain level. Likewise, certain logistics students might not accept job offers that are too far from home, or if the job offer is not aligned with their primary interests. In these situations, adaptive conjoint analysis would be a more appropriate research method.

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BIOGRAPHIES

Michael S. Garver is Professor of Marketing at Central Michigan University. He earned his Ph.D. from the University of Tennessee, Knoxville. He stays active with the business community through speaking, consulting, and conducting best practice research. His interests include using leading edge methods in marketing and logistics. E-Mail: garvelms@cmich.edu

Sean P. Goffnett is Associate Professor of Marketing and Logistics at Central Michigan University. He received his Ph.D. from Eastern Michigan University. His research interests include humanitarian logistics, leadership-followership, quality, process improvement, and talent management. E-Mail: sean.goffnett@cmich.edu

Richard L. Divine is Professor of Marketing at Central Michigan University. He earned his Ph.D. from Michigan State University. His primary research interests are marketing, buyer behavior, and business education. E-Mail: divin1rl@cmich.edu

Zachary Williams is A Jerry and Felicia Campbell Endowed Fellowship for Research and Professor of Marketing and Logistics at Central Michigan University. He received his Ph.D. at Mississippi State University. His primary research interests are in the area of supply chain talent management and security. E-Mail: zac.williams@cmich.edu

Connor F. Davis is an Export Analyst at Kimberly-Clark Corporation. Connor holds a Bachelor's of Science in Business Administration from Central Michigan University. E-Mail: davisconnor@gmail.com

Guidelines for Journal of Transportation Management Submission/Publication

GENERAL

1. Editor Contact Information – Dr. John C. Taylor, Associate Professor of Supply Chain Management, Department of Marketing and Supply Chain Management, School of Business, Wayne State University, Detroit, MI 48202. Office Phone: 313 577-4525. Cell Phone: 517 719-075. Fax: 313 577-5486. Email: taylorjohn@wayne.edu
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$$y = a + 1x + 2x + 3x + ax$$

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Website:

Wilson, J. W. (2003), "Adapting to the Threat of Global Terrorism: Reinventing Your Supply Chain," [On-line]. Available: <http://georgiasouthern.edu/coba/centers/lit/threat.doc>. Created: 11/01/02, Accessed: 11/12/03.

MANUSCRIPT SAMPLE**A FRAMEWORK FOR EVALUATING SUPPLY CHAIN PERFORMANCE**

Terrance L. Pohlen, University of North Texas

ABSTRACT

Managers require measures spanning multiple enterprises to increase supply chain competitiveness and to increase the value delivered to the end-customer. Despite the need for supply chain metrics, there is little evidence that any firms are successfully measuring and evaluating inter-firm performance. Existing measures continue to capture intrafirm performance and focus on traditional measures. The lack of a framework to simultaneously measure and translate inter-firm performance into value creation has largely contributed to this situation. This article presents a framework that overcomes these shortcomings by measuring performance across multiple firms and translating supply chain performance into shareholder value.

INTRODUCTION

The ability to measure supply chain performance remains an elusive goal for managers in most companies. Few have implemented supply chain management or have visibility of performance across multiple companies (Supply Chain Solutions, 1998; Keeler et al., 1999; Simatupang and Sridharan, 2002). Supply chain management itself lacks a widely accepted definition (Akkermans, 1999), and many managers substitute the term for logistics or supplier management (Lambert and Pohlen, 2001). As a result, performance measurement tends to be functionally or internally focused and does not capture supply chain performance (Gilmour, 1999; *Supply Chain Management*, 2001). At best, existing measures only capture how immediate upstream suppliers and downstream customers drive performance within a single firm.

Table 1 about here

Developing and Costing Performance Measures

ABC is a technique for assigning the direct and indirect resources of a firm to the activities consuming the resources and subsequently tracing the cost of performing these activities to the products, customers, or supply chains consuming the activities (La Londe and Pohlen, 1996). An activity-based approach increases costing accuracy by using multiple drivers to assign costs whereas traditional cost accounting frequently relies on a very limited number of allocation bases.

$$y = a^2 - 2ax + x^2$$

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Manrodt, Karl (2003), "Drivers of Logistics Excellence: Implications for Carriers," In I. W. Wilson (Ed.), *Logistics and Transportation Yearbook 2003* (pp. 126-154) Englewood Cliffs, NJ: Prentice-Hall, Inc.

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