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### DECLARATION OF DR. MICHAEL H. BELZER

I, Dr. Michael H. Belzer, hereby declare as follows:

## **BACKGROUND**

1. I am a Professor of Economics at Wayne State University in Detroit, Michigan, where I teach labor economics, industrial organization, and macroeconomics.

2. I drove a tractor trailer for approximately ten years and 750,000 miles between approximately 1974 and 1986.

3. I received my A.B. (1972), M.S. (1990), and Ph.D. (1993) degrees from Cornell University. I began teaching at Wayne State University in 2000, and I have been a tenured member of the faculty since 2004 and a full professor since April 2020. A true and correct copy of my *curriculum vitae* is attached to this declaration as **Exhibit A**.

4. A major focus of my academic research has been on labor economics in the transportation industry, and my analysis below is based on my decades-long research on this subject. My publications on this subject include *Sweatshops on Wheels: Winners and Losers in Trucking Deregulation* (Oxford University Press, 2000), and dozens of articles, book chapters, and monographs on trucking industry and labor market issues, including many peer-reviewed articles on trucking and commercial motor vehicle (CMV) driver safety and health issues.

5. I have served in a professional capacity in the fields of industrial relations and transportation, especially on issues involving trucking, trucking labor relations, trucking safety, and trucking labor markets.

6. The Transportation Research Board (TRB) is a division of the National Academy of Sciences, Engineering, and Medicine (formerly the National Research Council of the United States), which serves as an independent adviser to the President of the United States, Congress, and federal agencies on scientific and

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

technical questions of national importance.

- 7. I founded the TRB Committee on Trucking Industry Research and served as chairman of the initial organizational meetings, the Task Force, and the Committee for 15 years, serving now as an Emeritus Member. I was a founding and 12-year Member of the TRB Committee on Truck and Bus Safety (currently a "Friend") and an 18-year Member of the TRB Committee on Freight Economics and Regulation (currently a "Friend").
- 8. I have served on the National Institute for Occupational Safety and Health National Occupational Research Agenda (NIOSH/NORA) Transport, Warehouse, and Utilities Sector Council since 2006.
- 9. I served on the National Research Council National Academies of Sciences, Engineering, and Medicine Committee for Review of the Federal Motor Carrier Safety Administration (FMCSA) and National Highway Transport Safety Administration (NHTSA) Large Truck Crash Causation Study, 2000-2003.
- I also served on the National Academies of Sciences, Engineering, and 10. Medicine Committee for National Statistics (CNSTAT) Expert Panel on the Review of the Compliance, Safety, and Accountability Program of the Federal Motor Carrier Safety Administration, 2016-2017.
- 11. I have provided testimony and presentations about the trucking industry to numerous government entities throughout my career.
- 12. Most recently, on January 18, 2023, I provided evidence on the relationship between truck driver compensation and motor carrier safety as well as driver recruitment and retention to the TRB Committee on Impacts of Alternative Compensation Methods on Truck Driver Retention and Safety at their request. The Committee was funded by Congress as part of the "Infrastructure Investment and

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<sup>&</sup>lt;sup>1</sup> https://www.nationalacademies.org/our-work/impacts-of-alternativecompensation-methods-on-truck-driver-retention-and-safetyperformance#sectionCommittee.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

Jobs Act" passed November 15, 2021,<sup>2</sup> and the project was assigned to TRB. I provided evidence on the same subject at the request of the National Economic Council of the Executive Office of the President on January 19, 2023.

- 13. I testified before Congress in 2012, calling for closer cooperation between the U.S. Department of Transportation and the Department of Labor on labor and trucking safety issues, as well as labor market governance. I specifically called for government officials to resolve the contradiction between definitions of "work" used by the U.S. Department of Labor and U.S. Department of Transportation.
- 14. I made multiple presentations during 2021 and 2022 to the U.S. Department of Labor and U.S. Department of Transportation Federal Motor Carrier Safety Administration (FMCSA) on labor market and supply chain consequences of the disjunction between the definition of "work" for purposes of DOL Fair Labor Standards Act wage-and-hour enforcement, and the FMCSA definition of work—called "on-duty" status—for purposes of safety enforcement. The conjunction of these two related but disparate purposes, as proposed and discussed in these discussions and presentations, is intended to assure a smoothly functioning commercial motor vehicle labor market. These presentations also addressed the purported "driver shortage" claimed by the American Trucking Associations and its affiliates, which is really a commercial motor vehicle driver recruitment and retention problem that stems from the above-described disjunction. These and earlier presentations and meetings during the past two years contributed to the development of the U.S. Department of Transportation's "Supply Chain Assessment" in February 2022.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> https://www.congress.gov/bill/117th-congress/house-bill/3684.

<sup>&</sup>lt;sup>3</sup> U.S. Department of Transportation. (2022). *Supply Chain Assessment of the Transportation Industrial Base*. Washington, DC. Retrieved from: https://www.transportation.gov/supplychains and

https://www.transportation.gov/sites/dot.gov/files/2022-03/EO%2014017%20-DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

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DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

### **OVERVIEW**

- I was retained by Defendants to provide my expert opinion on the 15. following issues:
  - How trucking industry business and employment relationships are structured;
  - The implications of drivers' classification status as employees or independent contractors for their ability to own their own trucks, their flexibility, their independence, and their compensation;
  - The various options that motor carriers have for complying with California's AB 5;
  - Any evidence about the impact of California's AB 5 on the availability of trucking services.

# INTRODUCTION AND SUMMARY

16. Trucking, and the predecessor to trucking in the form of pack horses and wagons, has always had a diversity of employment and ownership arrangements. The history of the trucking industry and of trucking labor relations in the United States reveals that wagon team drivers before the development of trucks differed between those who owned their own horse teams and wagons, and those who were employed by teaming companies. The organization of trucking differed across the U.S. because the industry was decentralized. After World War I, when the motorized truck came into use and paved highways made interstate trucking feasible, industrial organization remained diverse, depending on local preferences. Even after the passage of the Motor Carrier Act of 1935, when trucking was regulated, and as trucking expanded to intercity operations and the International

- 17. Most truck drivers who are referred to colloquially as "owner-operators" would more accurately be called "owner-drivers." Owner-drivers lack their own operating authority and must haul freight under the auspices of a motor carrier. As a group, the owner-drivers lack true independence and suffer from economic exploitation. By contrast, as further explained below, the term "owner-operator" should be reserved for truly independent businesses that operate under their own operating authority.
- 18. In the past, many motor carriers used a two-check model that compensated owner-drivers separately for the lease of the truck and for the wages of the truck driver. The two-check model provides a practical means for motor carriers to continue to use owner-drivers while classifying them as employees, and for owner-drivers to continue to drive their own vehicles while receiving the protections afforded to employees.
- 19. In addition to providing trucks of their own and employing truck drivers, motor carriers can comply with California's AB 5 by: 1) using owner-drivers and this two-check model; 2) contracting with true owner-operators who operate their truck(s) under their own authority; 3) setting up brokerages that

<sup>&</sup>lt;sup>4</sup> Belzer, Michael H. (2000). *Sweatshops on Wheels: Winners and Losers in Trucking Deregulation*. Oxford, UK and New York, NY: Oxford University Press, pg. 109, referencing Hirsch, Barry T. (1993). Trucking Deregulation and Labor Earnings: Is the Union Premium a Compensating Differential? *Journal of Labor Economics*, 11(2), 279-301.

<sup>&</sup>lt;sup>5</sup> Belzer, *Sweatshops on Wheels*, *id.* at pp. 22-23. DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

- 20. I have not found evidence that the adoption of California's AB 5 has caused any impact on the availability of trucking services. The trucking industry claims that there has been a major shortage of truck drivers in recent years, but the purported shortage is caused primarily by the decline in the real compensation of truck drivers, who now earn less (on an inflation-adjusted basis) than they did more than four decades ago.
- 21. Estimates are hard to compare across the last four decades because of changes in data series published by the Bureau of Labor Statistics.<sup>6</sup> I previously estimated that annual truck driver earnings declined approximately 33% between 1980 and 2000, making trucking less desirable than it was in 1980.<sup>7</sup> Truck Drivers Heavy and Tractor Trailer (occ. 53-3032) earned \$32,810 annually in 2000 (\$50,844.23 in 2021 inflation-adjusted dollars), but earned \$50,340 in January 2021—a further decrease over twenty years.<sup>8</sup>
- 22. Comparing truck driver earnings to the earnings of other production workers—who are covered by the Fair Labor Standards Act, which provides for a 40-hour work week with premium pay over 40 hours—and assuming the average truck driver works 60 hours per week (as surveys show), truck drivers should expect to earn 70 hours of pay per week or 3,640 hours of pay per 52-week year. This gave them a 2021 FLSA-equivalent pay rate of \$13.83 per hour. With the

<sup>&</sup>lt;sup>6</sup> www.bls.gov/web/empsit/cesseriespub.htm.

<sup>&</sup>lt;sup>7</sup> Belzer, 2000, *op cit*.

<sup>&</sup>lt;sup>8</sup> "Heavy and Tractor-Trailer Truck Drivers" Occupational code 53-3032; https://stats.bls.gov/oes/current/oes\_nat.htm#53-0000.

<sup>&</sup>lt;sup>9</sup> I use the 70-hour figure because the FLSA would require time-and-one-half to be paid for 20 of the 60 hours.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

current California minimum wage of \$15.50 per hour, truck driving does not look like a good choice in California. Individuals may choose trucking because they can work more hours than in any other job, or more hours than are safe or legal, but working long hours has a cost to personal health, safety, and family life, so drivers may think twice about trucking because of how much work they must do to earn this money.

- 23. In addition, most truck drivers in 1980 earned a mileage rate for driving time *plus* an hourly rate for non-driving time. Today, most truck drivers earn nothing for non-driving labor (for example, loading, unloading, maintenance and repair, paperwork management, dispatch and wait time for loading, unloading, and dispatching). Surveys show that the average driver devotes about 25% of his or her workweek to such unpaid non-driving labor, but many, if not most, U.S. truck drivers record this time as "off duty" in their logs (line 1 or 2 on the logbook, instead of as "on-duty not-driving" time on line 4 of the logbook), and claim to work an average of about 60 hours per week even if they work considerably more hours every week. Thus, because many drivers log their on-duty not-driving time as off duty, the real hourly compensation rate for truck drivers actually has declined much farther than the annual rate and drivers actually need to work more hours to make up for the unpaid non-driving time.
- 24. The Office of the Inspector General of the U.S. DOT studied the amount and consequences of unpaid detention time (beyond two hours either loading or unloading or both) and found extensive cost to truck drivers, trucking company owners, and the U.S. economy. It also found a direct risk of crash associated with extended unpaid non-driving time: "Accurate industrywide data on driver detention do not currently exist because most industry stakeholders measure only time spent at a shipper or receiver's facility beyond the limit established in shipping contracts. Available electronic data cannot readily discern detention time from legitimate loading and unloading tasks, and are unavailable for a large

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB  $^{7}\,$ 

segment of the industry. We estimated that a 15-minute increase in average dwell time—the total time spent by a truck at a facility—increases the average expected crash rate by 6.2 percent. In addition, we estimated that detention is associated with reductions in annual earnings of \$1.1 billion to \$1.3 billion for for-hire commercial motor vehicle drivers in the truckload sector. For motor carriers in that sector, we estimated that detention reduces net income by \$250.6 million to \$302.9 million annually."<sup>10</sup>

25. The purported "driver shortage" therefore is really a recruiting and retention problem that is common to all businesses, but a serious threat to trucking. A law that improves the economic conditions of truck drivers is likely to bring more workers into the trucking industry, thereby resolving the trucking industry's recruitment and retention problem.

#### **ANALYSIS**

# How the trucking industry business and employment relationships are structured

26. In this declaration, I use the term "owner-driver" to mean a driver who owns one or more vehicles but either does not have motor carrier operating authority or is not hauling freight under that authority.<sup>11</sup> I use the term "owner-operator," on the other hand, to mean a driver who owns his or her own truck and

<sup>&</sup>lt;sup>10</sup> Office of the Inspector General. (2018). Estimates Show Commercial Driver Detention Increases Crash Risks and Costs, but Current Data Limit Further Analysis (ST2018019). Retrieved from Washington:

https://www.oig.dot.gov/sites/default/files/FMCSA%20Driver%20Detention%20Final%20Report.pdf.

<sup>&</sup>lt;sup>11</sup> In my previous declaration, I used the terms "independent owner-operator" and "dependent owner-operator" to refer to these two different groups. I believe "owner-operator" and "owner-driver" are more precise terms and, as explained in this declaration, are the consensus terms now used by industry experts who seek clarity.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

operates it under his or her own operating authority.

- 27. There are many differences between "owner-operators" and "owner-drivers." An owner-operator who has federal operating authority is an independent motor carrier free to contract with customers as the owner-operator sees fit.

  Sometimes an owner-operator drives his or her own truck; sometimes an owner-operator employs others to drive; and sometimes an owner-operator does both.
- 28. By contrast, owner-drivers are operating under the operating authority of a motor carrier and are intensively supervised by that carrier, as the FMCSA requires.
- 29. Owner-drivers often are under a long-term contract with a single motor carrier. Sometimes they lease trucks from the motor carrier, or the motor carrier's related firm, in which case they are called "lease-purchase drivers," even if they have little chance to purchase the truck. While true owner-operators, working under their own authority and obtaining their own freight as independent motor carriers, can refuse work or choose work with better terms and conditions, owner-drivers contracted to a motor carrier must accept loads the carrier gives them or risk significant sanction. They do not refuse work without a cost, though they may have marginally greater bargaining power if their truck is paid for and their carrier values their work enough to not pressure them to do more work.
- 30. In about 2005, the Transportation Research Board (TRB) asked the Standing Committee on Trucking Industry Research to create a comprehensive introductory document that described the trucking industry for the benefit of professionals generally unfamiliar with trucking, and to precisely define terms used in trucking.<sup>12</sup> The audience for this document was to be Congressional staff,

<sup>&</sup>lt;sup>12</sup> https://www.mytrb.org/OnlineDirectory/Committee/Details/3332. In 2005, this soon-to-be committee still functioned as a "task force"—a preliminary exploratory process toward Standing Committee approval that took many years to complete.

- 31. In 2010, the TRB published a comprehensive introductory document, an "E-Circular" that clarified these definitions for the benefit of those outside the industry who lacked a complete understanding of trucking. The authors of the E-Circular included economists who specialize in trucking as well representatives from the public sector (NIOSH and FMCSA) and from the trucking industry (the American Transportation Research Institute, which is the not-for-profit arm of the American Trucking Associations). Although it did not go through the full formal TRB review process, it took about five years to develop, and it underwent extensive review by committee members as well as by staff and leadership at multiple levels of TRB before being cleared for publication.
- 32. After making a brief reference to the history of the owner-driver in surface freight transport, *Trucking 101* points out that "a small trucking company may consist simply of a single driver and a single truck, which he or she may own and drive. If the owner has registered with the FMCSA for DOT operating authority, which requires creating a specific type of new record in the MCMIS [Motor Carrier Management Information System], then the firm may solicit freight as a for-hire carrier directly from the shipping public." Further, the fact that "an owner–operator books his own freight and operates on his own authority or

<sup>&</sup>lt;sup>13</sup> See the Transportation Circular Program, https://www.trb.org/Publications/PubsTransportationResearchCirculars.aspx.

<sup>&</sup>lt;sup>14</sup> Burks, Stephen V., Belzer, Michael H., KWAN Quon, Pratt, Stephanie G., & Shackelford, Sandra. (2010). *Trucking 101: An Industry Primer*. Washington: Transportation Research Board. Page 9.

http://onlinepubs.trb.org/onlinepubs/circulars/ec146.pdf.

company certification is one clear measure of true independence."<sup>15</sup> The fact that the owner-operator owns the truck and "operates" the small carrier on his own operating authority makes him or her an owner-operator; he or she need not drive the truck.

- 33. A scholarly survey showed that most individuals who drive trucks that they own are not really owner-operators, as defined above. Rather, they are owner-drivers who operate under the operating authority of a certificated motor carrier. Owner-drivers also are sometimes referred to as "dependent contractors," because they essentially function the same as employees. They may depend on the motor carrier with which they contract for freight; for negotiations between the motor carrier and the shippers regarding the freight rate; for operating authority; for tracking and surveillance equipment and platforms; for fuel, tires, maintenance and repair services; and for insurance, tax management, and other supports. This is true regardless of whether owner-drivers think they are employees or think they are independent contractors.
- 34. Data collected by the University of Michigan Trucking Industry Program (UMTIP) in 1997–1998 showed that approximately 74% of all over-the-road drivers described themselves as employees of the motor carrier for which they work. The remainder were a combination of owner-operators, who have their own operating authority (15% of those who own their own trucks fall into this category), and owner–drivers, who operate under a motor carrier's operating authority (85% are in this category) and may be described as dependent contractors (or, as

<sup>&</sup>lt;sup>15</sup> *Id.* at 9.

<sup>&</sup>lt;sup>16</sup> Belman, Dale L., Monaco, Kristen A., & Brooks, Taggert J. (2004). *Sailors of the concrete sea: A portrait of truck drivers' work and lives*. East Lansing, Mich.: Michigan State University Press. This survey shows that about three-quarters of all owner-drivers obtain their freight and more than 90% of their revenue from the carrier to which they lease in "an alternative to a conventional employment relationship" (pg. 89).

- 35. Furthermore, these data show that most owner–drivers operate under permanent contracts with motor carriers to which they lease their trucks, <sup>17</sup> and they receive load assignments either from the carrier to which they lease or by searching load boards for their own freight at volatile spot rates. <sup>18</sup>
- 36. In distinguishing between owner-drivers and owner-operators, it is important to include the concept of independence. Only truly independent truckers with their own operating authority should be called "owner-operators." They operate under their own authority, locate their own freight, and manage their own financial and operational affairs. By contrast, a "dependent" owner-driver operates under another motor carrier's authority and hauls that motor carrier's freight, and that motor carrier manages its affairs to a significant degree. <sup>19</sup> Thus, from a labor economics standpoint, owner-drivers function as dependent contractors (as opposed to independent contractors) and almost always meet the definition of employees under the governing legal framework.

# Preliminary Injunction Filings

37. I have reviewed the preliminary injunction briefing filed by the plaintiffs and intervenors in this case, as well as their supporting declarations. Their briefing makes numerous references to "independent owner operators" throughout the document. The repeated use of this and similar language (including

<sup>&</sup>lt;sup>17</sup> A "permanent contract" is a continuing relationship that usually can be terminated for any reason or no reason by either party with thirty-days notice.

<sup>&</sup>lt;sup>18</sup> Belman et al. at 10.

<sup>&</sup>lt;sup>19</sup> *Id*. at 11.

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- "independent contractors," "owner-operators," and, even more vaguely, "independent truckers") is confusing, as it does not distinguish among different types of owners and drivers who work within trucking, and the confusing terminology obfuscates the real situation in California intrastate and interstate trucking.
- 38. As explained previously in more detail, for purposes of understanding the structure of the trucking industry it is important to use clear terminology and to distinguish between owner-operators and owner-drivers.
- 39. As previously noted, the term "owner-operator," when used properly, means a true independent business that has obtained its **own** motor carrier operating authority from the Federal Motor Carrier Safety Administration (FMCSA) and transports freight under its **own** motor carrier operating authority. The independent owner-operator may drive the truck or may hire others to drive it. The term "ownerdriver" is used accurately to mean a truck driver who owns his own truck but does not have his own FMCSA operating authority, or has his own operating authority but nonetheless transports freight under someone else's operating authority.
- 40. The Declarations of Todd Spencer, Marc McElroy, Albert Hemerson, Paul Medina, Stacy R. Williams, and others show the imprecision of language that is used often in relation to the term "owner-operator."
- 41. For example, in his declaration, Thomas Odom describes his life as a truck driver, using the term "owner-operator" to describe himself during any time that he owned his own truck. He recounts his history, which included work as an employee driver as well as owner of a small trucking company (Tiger Rock Transportation) with between two and six trucks. During most of his time owning this company, he appears to have been acting as a trucking company operating with its own authority (a true owner-operator or small motor carrier). Mr. Odom later worked for Scully Companies, again as a true owner-operator (operating under his own authority as a contractor for Scully), and then later as an owner-driver,

operating under lease to Scully (and then Ryder Systems, and even later to Landstar) using their authority.

- 42. In his declaration, Louis Estrella similarly describes his experience as what he calls an "owner-operator," with his first experience as a new trainee driver working as an "owner-operator" for C.R. England. While he does not provide detail, I believe that he may have been a "lease-purchase driver," not an "owner-operator," because he does not mention how he bought a truck without having had trucking experience. Such drivers obtain their trucks through the companies they work for and pay a substantial fraction of their operating revenue directly to this carrier, or to its subsidiary or related truck-leasing company. They are not "independent," which might explain his statement that he lost his truck due to a crash (since otherwise one would expect insurance would allow him to repair or replace the truck). Starting in 2017, Mr. Estrella bought a truck and worked as what he calls an "owner-operator" for Transit International and Ryder, and later Landstar. While also not stated, he probably worked under their operating authority and depended on them for freight. If that is the case, he actually was working as an owner-driver, not an owner-operator.
- 43. The contractors supplying declarations for OOIDA, except in part the owner of Tiger Rock Transportation and perhaps the owner of Clark (Texas), who hires contractors to supply the capital and haul the freight, all seem to rely on the carrier to which they are leased to manage their businesses.
- 44. The foregoing declarations are examples that demonstrate that the term "owner-operator" is used in multiple ways. The trucking industry lumps "owner-operators" and "owner-drivers" together as a marketing or public relations term to

<sup>&</sup>lt;sup>20</sup> A lease-purchase driver pays a weekly, biweekly, or monthly lease to the owner of the equipment, and does not own the truck until the lease is paid off. Drivers rarely pay it off without leasing a replacement truck, so they stay on the treadmill.

promote the idea that truck drivers can become independent businesspeople, but it is important to distinguish among these meanings so that the term means the same thing in all cases.

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# Implications of drivers' classification status for their ability to own their own trucks, their flexibility, their independence, and their compensation

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#### Drivers' Stated Preference to Own Their Own Truck

living in his truck for weeks or sometimes months at a time.

more reliable indication of motivation.

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Some drivers have stated that they prefer to own their own trucks. However, their actions reflect a preference for owning and driving their own truck, not a preference for the substantial risk and responsibility of owning and managing their own independent trucking company. Ownership of the truck, in other words, is a separate preference from owning and operating an individual business as an

13 14 owner-operator. By owning the truck, they can set the truck up the way they want it; this is like owning your house, compared with renting, when the driver will be

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46. Drivers' stated preference to own their truck does not mean that they prefer to own and operate their own trucking company. Indeed, three quarters of all owner-drivers lease permanently to trucking companies, haul freight under the company's authority, take their loads from the motor carrier's dispatch (just like company-employed drivers do), accept the revenue that the motor carrier secures for the freight, and work in almost every respect like an employee driver. They reveal only their preference for owning the truck, not the preference for owning their own trucking company. Economists call this "revealed preference," and it is a

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> 47. There are various types of economic relationships in the trucking industry wherein drivers own or lease their own trucks.

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48. First, drivers may own and drive their own trucks by becoming

- 49. Second, drivers may own and drive their own trucks but lease their trucks to a motor carrier and operate under the motor carrier's FMCSA authority. These drivers are "owner-drivers" rather than independent businesses.
- 50. Third, drivers may lease their trucks from a leasing company or a motor carrier (also known as a "trucking company") and drive under the company's operating authority. These drivers are sometimes referred to as owner-drivers or even owner-operators, but they do not actually own the trucks or operate a trucking business under their own operating authority. Some of these drivers may also obtain use of a truck through a "lease-purchase" agreement, signing a lease with the company that obtains the freight; dispatches them on loads; leases surveillance and telecommunications to them; requires them to obtain service, parts, and tires from them; and gives them the "option" to let related contracted firms manage their taxes and other business processes. These "lease-purchase drivers" have signed a debt-peonage agreement, typically without understanding what they have done.

# The Two-Check System

- 51. One employment and leasing model that is not discussed in the preliminary injunction briefing that I reviewed would resolve the complicated relationship between employee driving and contracting to lease trucks. This system simply separates the two functions involved in the engagement of trucks and drivers. Motor carriers with operating authority needing both trucks and drivers can hire a truck and driver and contract with the truck owner for the lease of the truck, while hiring a driver as an employee. This system was prevalent before "deregulation" of trucking and allows trucking companies and truck drivers an optimal solution when the owner-driver supplies a truck as well as a driver.
- 52. Before the 1980s, many owner-drivers were classified by motor carriers as employees and paid using a two-check system. As previously discussed, DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

- 53. Thus, if the owner-drivers drove their own trucks, they would get two checks. If the owner-drivers simply leased their trucks to the trucking company, they would receive a check for the truck lease, and the driver would receive a separate check for the driver's wages.
- 54. With this system, truck owners could lease multiple trucks to a carrier with operating authority, and the trucks could be driven by multiple employee drivers, efficiently using capital resources. The employer became responsible, as in the standard employer-employee model, for paying the employer portion of employment taxes as well as workers' compensation; because the driver is an employee, the driver remains responsible for the employee's part of taxes.
- 55. The two-check model simply separates compensation for the lease of the truck from compensation for the labor of the driver. Under the two-check model, employee truck drivers may or may not be driving their own trucks.
- 56. This two-check model does not require motor carriers to hire more drivers or engage more trucks. It simply requires that the two roles—employer of the truck driver and hirer of the truck—be separated.

# **Current Classification and Treatment of Truck Drivers**

57. I understand that the plaintiffs in this case take the position that owner-drivers want to be "independent," but owner-drivers nationwide (whether they are classified by trucking companies as employees or contractors for payroll purposes) do not have true independence. They are subject to widespread and invasive

- 58. This is important because neither owner-drivers who are classified as employees nor owner-drivers who are classified as contractors for payroll purposes have the flexibility or independence associated with "independent truckers" of myth. Only truly independent owner-operators (those who are operating under their own FMCSA operating authority) operate their firms under their own authority and obtain their own freight at a price they negotiate.
- 59. The main consequence of trucking companies' widespread misclassification of owner-drivers as contractors rather than employees for payroll purposes is to shift business and liability risk from the trucking company to the misclassified driver. The truck driver—who has been misclassified as a contractor rather than employee—bears the risk of capital investment, liability, and all the foregoing business expenses, while remaining controlled in almost every way by the trucking company.
- 60. In 2006, I conducted a survey of owner-operators and owner-drivers to try to understand their cost of operations, as well as their net earnings. I discovered that the costs of drivers who own their own trucks and have been classified as independent contractors (both owner-operators and owner-drivers) were so substantial that some of them made little or no money for their work effort.
  - 61. The summary preliminary conclusion of this 2006 survey was that

<sup>&</sup>lt;sup>21</sup> Levy, Karen. (2023). *Data Driven: Truckers, Technology, and the New Workplace Surveillance*. Princeton and Oxford: Princeton University Press. DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB 18

drivers who own their own trucks and have been classified as independent contractors earn somewhat less than non-union employee drivers, on average, while bearing all the risk associated with their jobs, including the risk of volatile fuel costs, capital investment, repair cost, delays of freight not of their own making, and market swings in freight rates and freight volumes. Compared to unionized drivers, the disparity would be even more stark. Their net compensation, while not insignificant, does not appear to warrant the risk and the investment they undertake.

- 62. While the median owner-operator or owner-driver classified as an independent contractor earned 32 cents per mile, including both operating profit and wages paid to himself, a substantial fraction earn little or nothing. That is, many of these drivers classified as independent contractors earn so little revenue that their expenses outpace their revenues, putting them in a money-losing position throughout the year. While this seems inconceivable to most people, the dedication of these drivers and the energy they put into their work, as well as their apparent ambition to get a piece of the American Dream, seems to lead them to work for so little that they cannot cover their expenses, presumably hoping that next year will be better.<sup>22</sup>
- 63. Indeed, net profit and wages from trucking operations for a single owner-driver/owner-operator, driving for himself, was an average of \$21,266.70 (median \$17,988.50). For an owner-driver/owner-operator with no employees, gross revenue from trucking operations per truck averaged \$112,545 annually (median \$110,306). That means owner-drivers with one truck and no employee drivers had an average operating margin (revenue net of operating costs) of 18.9%, and on average earned 16 cents per mile (the equivalent of 24 cents per mile at the

<sup>&</sup>lt;sup>22</sup> Belzer, Michael H. (2006). *OOIDA 2003-2004 Cost of Operations Survey:* Report of Results. Retrieved from Detroit, MI, pp. 1-2.

https://www.researchgate.net/publication/336265370\_OOIDA\_2003-

<sup>2004</sup>\_Cost\_of\_Operations\_Survey\_Report\_of\_Results.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

end of 2022).

64. While the U.S. Census currently estimates annual gross earnings for employee drivers at around \$48,000, owner-operators and owner-drivers annually were earning \$31,528.04 gross income in 2022 dollars—about two-thirds as much as today's mostly non-union employee drivers. Rather than earning a premium for taking the risk and responsibility of owning their own trucks, the independent contracting model under which most owner-drivers work leaves most owner-drivers—who lack independence—earning substantially less.

- 65. Because truck drivers average 60.4 hours of work per week,<sup>23</sup> and might be able to earn just as much working a regular 40-hour week in a different job, this damages the labor market and the supply chain, making it extremely difficult to recruit and retain truck drivers across the country. Long-haul truck drivers work at least 50% more hours, on average, than other U.S. workers; while they may earn more money over the course of a year, they may not even earn the minimum hourly wage.
- 66. As previously noted, I have reviewed the declarations filed by the plaintiffs in this case. Owner-driver Thomas Odom had been a self-described owner-operator and says he could not afford to pay the fuel costs and the damage and liability insurance required of him to be an owner-operator, given the types of loads available to him in that capacity. He also says he could not afford the cost of obtaining his operating authority (though he previously operated under his own authority). He says that when he worked for motor carriers, he previously "had access to their buying power for insurance, fuel, tire, and maintenance-repair

<sup>&</sup>lt;sup>23</sup> Sieber, W. Karl, Robinson, Cynthia F., Birdsey, Jan, Chen, Guang X., Hitchcock, Edward M., Lincoln, Jennifer E., Nakata, Akinori, and Sweeney, Marie H. (2014). Obesity and other risk factors: the national survey of U.S. long-haul truck driver health and injury. *American Journal of Industrial Medicine*, *57*(6), 615-626. doi:10.1002/ajim.22293.

discounts."

67. These statements point to the fact that being a true owner-operator involves running a business and a one-person business cannot take advantage of economies of scale and scope from which larger motor carriers can benefit. Odom says that the best deal on insurance he could find was from OOIDA, allowing him to reduce those costs, but it is expensive to carry that overhead,<sup>24</sup> and compensation for the work is low. This is a reason why owner-drivers do not operate as independent businesses and instead obtain insurance, fuel, tires, maintenance, and sometimes even the truck (in lease-purchase agreements)<sup>25</sup> from or through the motor carrier, and rely on the motor carrier's operating authority as well.

- 68. While Mr. Odom apparently believes he cannot be classified as an employee and own his own truck, with the two-check system discussed above, he could be an employee and own his own truck. The motor carrier benefits as well, as it gets an owner-driver to supply the capital and take responsibility for the truck. The various options that motor carriers have for complying with AB 5
- 69. As discussed above, referring to driver survey data like that produced by UMTIP, drivers commonly are motivated to become owner-drivers mostly because they want to own the truck they drive and because of perceived tax advantages they may gain by owning and leasing the truck. As discussed above with reference to the two-check system, it is quite possible for carriers to hire drivers who own their own trucks as employees and to pay them separately to lease the truck. This would require the carrier to pay properly and separately for the use of the truck as well as the use of the driver. It allows drivers who would prefer to own their own trucks to do so, while compensating them for the cost of operating

<sup>&</sup>lt;sup>24</sup> "I could not figure out a way to support that dollar amount either." Odom declaration page 3, lines 20-21.

<sup>&</sup>lt;sup>25</sup> Viscelli, Steve. (2016). *The Big Rig: Trucking and the Decline of the American Dream*. Oakland, CA: University of California Press.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

the truck.

- 70. I have reviewed the statements in various declarations in this case that the trucking industry will suffer major dislocations because of California's AB 5. These claims, however, do not address the various ways that motor carriers can comply with AB 5.
- 71. First, trucking companies that want to retain full control over recruiting and retention as well as operations can choose to implement the two-check system discussed above. These carriers would hire drivers as employees, and to the extent these drivers have their own trucks and wish to drive them, the carriers can lease the truck from the driver too. The carriers would issue a check for the driver and a check for the lease, simply separating the functions. Because the drivers are employees, the carriers can dispatch them to pick up and deliver freight the same way they do now. This requires no change in operations or routes.
- 72. Second, motor carriers can contract with true owner-operators who operate their truck(s) under their own authority. Motor carriers may open brokerages and use those brokerages to engage true owner-operators who operate their businesses using their own motor carrier operating authority.<sup>26</sup> These arrangements allow motor carriers to use owner-operators in the exact same way that they have always been used: to have available independent truckers to handle overflow of business at critical times, without having to commit to an excessive amount of capital or number of employees for overflow business. They can also use this model to hire drivers with specific skills or specific trucks that they may not need all the time, which is one reason why some businesses may prefer owner-operators.
  - 73. These options of using both employee drivers and *true* owner-

<sup>&</sup>lt;sup>26</sup> Tirschwell, Peter. (2022) "Brokerage model offers post-AB5 path in California". *Journal of Commerce*. July 21. https://www.joc.com/article/brokerage-model-offers-post-ab5-path-california\_20220721.html.

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

- 74. Law firms that specialize in trucking have recommended a process consistent with this model. "Greg Feary, a partner at Garvin Light Hanson & Feary, cautioned trucking companies and owner-operators in California to review their options and begin immediately to work toward compliance in the event that they are challenged by the Teamsters union, or California state labor or revenue agencies."<sup>28</sup>
- 75. A third option is to hire a separate trucking company, which has employee drivers, to haul overflow freight or freight on routes that the hiring carrier cannot haul profitably. This practice, too, has a long history in trucking. For decades, carriers have interlined freight with trucking companies that are better able to handle freight profitably on certain routes for which they have back-hauls or continuing business.
- 76. Mr. Greg Stefflre, in his declaration, indicates that 65% of his company's former owner-drivers have chosen to become owner-operators, using their own operating authority, and have incurred costs to "accept responsibility for

<sup>&</sup>lt;sup>27</sup>Mongelluzzo, Bill. (2022, July 1). California truckers expect 'business as usual' amid AB5 implementation. *Journal of Commerce*.

<sup>&</sup>lt;sup>28</sup> *Ibid*.

77. Stefflre's company could also follow the model discussed above by hiring drivers who own trucks on a two-check system. This would enable the drivers to continue to use their own trucks while benefiting from the company's economies of scale, and to be paid adequately for their labor. Part of trucking companies' additional cost of using employee drivers stems from the employment taxes they avoid by misclassifying drivers as contractors. Those taxes, however, are either paid by the drivers or the loss must be absorbed by somebody else in society, such as taxpayers.

# Impact of AB 5 on the availability of trucking services

- 78. Because trucking companies can comply with California's AB 5 by using the two-check model for hiring owner-drivers, by contracting with owner-operators who operate under their own operating authority (through a brokerage or otherwise), by contracting with other trucking companies that use employee drivers, or some combination of the foregoing, I do not expect that AB 5 has caused or will cause any disruption of the availability of trucking services, either in California or nationwide.
- 79. The trucking industry has claimed that there is a long-term nationwide shortage of truck drivers. Labor economists generally agree, however, that the primary cause of the purported driver shortage has been a decline in the real compensation received by drivers and a shift toward longer overall hours of work and days and weeks away from home. The problem is one of recruiting and

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

retention, not an actual shortage of workers who hold commercial driver's licenses. Truck drivers typically earn less now (on an inflation-adjusted basis) than they did forty years ago. The decline in real compensation, and the increase in unpaid non-driving labor hours drivers give away, makes truck driving a less attractive occupation and leads to higher driver turnover. Because AB 5 is intended to improve the economic conditions of workers (by preventing misclassification of employees as contractors), it should over time lead to more workers choosing to become truck drivers, thereby reducing rather than increasing the purported driver shortage.

- 80. If AB 5 had caused a disruption of interstate trucking services, I would expect that we would see evidence in the data and such evidence would be in the commercial news. I have not seen any reporting that suggests that there has been a change in routes, prices, or services that can be attributed to AB5. Plaintiffs made no such claim other than the anecdotal statements made in their declarations.
- 81. To a labor economist, absence of data brought before this court would imply an absence of data supporting this position. Mr. Stefflre declares that there are not enough drivers willing to work as employees, but provides no evidence beyond the anecdotes in his declaration. Mr. Schnautz declares that motor carriers are leaving California, and no longer doing business in California, but provides no more than the unsupported claim that this is happening.

All of the statements and conclusions in this report are true and correct to the best of my knowledge. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed in Ann Arbor, Michigan on April 7, 2023.

Michael H. Belzer, Ph.D

DECL. OF BELZER IN OPP. TO PI MOTIONS, Case No. 3:18-cv-02458-BEN-DEB

# **EXHIBIT A**

WAYNE STATE UNIVERSITY

DATE PREPARED: September 1, 2003

Professional Record DATE REVISED: February 10, 2023

NAME: Michael H. Belzer Graduate Faculty

#### **OFFICE ADDRESS:**

Department of Economics

656 W Kirby, 2127 Faculty/Administration Bldg.

Detroit, MI 48202 Phone: 313-577- 1328 Departmental web page:

https://clasprofiles.wayne.edu/profile/ai6896 or go.wayne.edu/michael-belzer

Wikipedia web page:

https://en.wikipedia.org/wiki/Michael H. Belzer

LinkedIn:

http://www.linkedin.com/in/soundscience

For links to research, policy, recent presentations and media:

https://www.michaelbelzer-saferates.com/

#### DEPARTMENT/COLLEGE:

Department of Economics, College of Liberal Arts and Sciences

#### PRESENT RANK & DATE OF RANK:

Professor, since April 2020

#### WSU APPOINTMENT HISTORY:

Year Appointed/Rank: September 1, 2000, as Associate Professor

Tenured in 2004 as Associate Professor of Urban and Labor Studies in the College of Urban,

Labor, and Metropolitan Affairs (CULMA)

With dissolution of CULMA on September 30, 2005, tenure granted in Department of

Interdisciplinary Studies, College of Liberal Arts and Sciences

With dissolution of the Department of Interdisciplinary Studies on September 30, 2007.

tenure granted in Department of Economics, College of Liberal Arts and Sciences

Director, Master of Arts in Economics

September 1, 2012 – July 2014; Co-director for International Program Development, MA

Program, through November 2015

Director, Undergraduate Bachelor of Arts in Economics

July 2014 – November 2015; August 2017 – 2019

Director of Graduate Studies

May 2022 to present

CITIZENSHIP: United States of America

Signature		

#### **EDUCATION**

Baccalaureate: A.B.; College of Arts and Sciences, Cornell University (1972) Graduate: M.S. (1990) and Ph.D.; Graduate School Cornell University (1993)

Major: Collective Bargaining, Labor Law, and Labor History

Minors:

City and Regional Planning, Human Resource Studies, Research Methods

#### FACULTY APPOINTMENTS AT OTHER INSTITUTIONS

• January 2022 – present

Associate Faculty, School of Graduate Studies, University of Lethbridge, Alberta, Canada

• March 5, 2007 – May 11, 2007

Visiting Scholar

Jilin University Business School, Changchun, Jilin Province, People's Republic of China

• September 10, 2006 – December 10, 2006

Visiting Scholar

Institute of European and American Studies, Academia Sinica, Taipei, Taiwan

• September 15, 2006 – November 15, 2006

Visiting Scholar

Institute of Labor Studies, National Cheng Chi University, Taipei, Taiwan

• September 2001 – September 2008

Adjunct Associate Research Scientist

University of Michigan Institute of Labor and Industrial Relations, Ann Arbor, MI

• September 1997 – September 2001

Assistant Research Scientist

University of Michigan Institute of Labor and Industrial Relations, Ann Arbor, MI

1998 – 2000

Adjunct Assistant Professor

University of Michigan Business School, Department of Organizational Behavior and Human Resource Management, Ann Arbor, MI

• 1995 – 1997

Senior Research Associate

New York State School of Industrial and Labor Relations, Cornell University; Ithaca, NY

• 1995

Visiting Lecturer

Industrial Relations Center, Curtis L. Carlson School of Management, University of Minnesota, Minneapolis, MN

1992 – 1995

Research Support Specialist

Institute of Collective Bargaining, New York State School of Industrial and Labor Relations, Cornell University, Ithaca NY

• 1990

Adjunct Instructor, Industrial Relations

National Emergency Training Center, Emmitsburg, MD

Adjunct Instructor, Labor Law New York State School of Industrial and Labor Relations, Cornell University, Ithaca, NY

#### PROFESSIONAL SOCIETY MEMBERSHIPS

Current:

- Labor and Employment Relations Association
- Detroit Area Chapter of the Labor and Employment Relations Association
- American Economics Association
- Transportation Research Board of the National Academies (Emeritus)

Past:

- Transportation Research Forum (1994-2000)
- University and College Industrial Relations and Human Resource Programs, Program Directors' Association, Institutional Membership representing the Master of Arts in Industrial Relations Program at Wayne State University (2000-2006)

#### **HONORS/AWARDS**

• 2016

Appointed Lifetime Emeritus Member of the Transportation Research Board Committee on Trucking Industry Research

• 2010

Publication "Worksite-Induced Morbidities Among Truck Drivers in the United States" was listed as one of the week's "top scientific articles, selected on the basis of potential for population impact and practical implementation", in Volume 2, Issue 38 of *Science Clips-Top Articles*, published by the Centers for Disease Control.

2009

Profiled in the July/August 2009 issue of *TR News*, the bimonthly general news magazine of the Transportation Research Board of the National Academies. <a href="http://onlinepubs.trb.org/onlinepubs/trnews/trnews263.pdf">http://onlinepubs.trb.org/onlinepubs/trnews/trnews263.pdf</a>, page 45.

• 2006

Certificate of Appreciation from the Transportation Research Board of the National Academies. Presented in recognition of service to the transportation community as Chairman of the Committee on Trucking Industry Research Task Force and Member of the Freight Systems Group Executive Board; 2001-2006

• 2003

Media Award (faculty member most widely consulted by the media) College of Urban, Labor, and Metropolitan Affairs, Wayne State University

• 2002

Industrial Relations Research Association John T. Dunlop Outstanding Young Scholar Award

• 2001

Media Award (faculty member most widely consulted by the media) College of Urban, Labor, and Metropolitan Affairs, Wayne State University • 2000

Certificate of Appreciation from the Industrial Relations Research Association Launch of the IRRA web site and moderation of the IRRA discussion list

1992

Cornell University Graduate School Fellowship

- NYSSILR Graduate Student Summer Fellowship
- 1990

Benjamin Miller Scholarship Cornell University Graduate School Summer Fellowship NYSSILR Graduate Student Summer Fellowship Lampert Scholarship

#### **TEACHING**

Years at Wayne State: 23

Years at Other Colleges/Universities (see appointment list above): 11 (teaching and research)

Courses Taught at Wayne State, last five years

Undergraduate Courses Taught at Wayne State, last five years

• Economics 2020, Principles of Macroeconomics

Graduate Courses Taught at Wayne State, last five years

- Economics 7400: Labor Economics and Human Resources I
- Economics 7210, Industrial Organization II
- Economics 7996, PhD research
- Economics 9991-9996, Candidate Maintenance Status: Doctoral Dissertation Research and Direction

#### Essays/Theses/Dissertations Directed

- Zainab Hans; Doctor of Philosophy, Economics; "Understanding the Impact of Gender Wage Gap on Violence Against Women and Children: An Analysis of Police Reported Incidents of Male Perpetrated Abuse"; 2022.
- Ju Shenyang; Doctor of Philosophy, Economics; "Empirical Study of Basic Violations, Pay Incentives, and Safety: Evidence from U.S. Intrastate Carriers; 2019.
- Takahiko Kudo; Doctor of Philosophy, Economics; "Statistical Analysis of the Effect of Work Conditions on Safety and Health in the U.S. Long-haul Trucking Industry: Evidence from the NIOSH Survey Data"; 2019.
- Matthias Jung; Doctor of Philosophy, Economics; "Economic Welfare of Firefighting Service in Detroit"; 2015.
- Michael R. Faulkiner; Doctor of Philosophy, Economics; Wayne State University; "A
  Three Essay Examination of Current Pay and Safety Issues in the Truckload Sector of
  the Motor Carrier Industry"; 2015.
- Francesca Romana Forestieri; Master of Regional Planning, Cornell University; "European Freight Transportation"; 1998, <u>Chair.</u>

#### Essays/Theses/Dissertations Committee Member

- Igor Mocko; Doctor of Philosophy, Economics; "Essays in Immigration Economics" 2022.
- Mohammadmahdi Farsiabi; Doctor of Philosophy, Economics Department; "Essays on Health Care Expenditures and Quality of the Environment"; 2021.

- "Reader" (external examiner) for PhD student Wonmongo Lacina Soro. "Towards An Understanding of Financial Influences on Heavy Vehicle Safety Outcomes". Queensland University of Technology (QUT), Brisbane; Spring 2020.
- Michael Greiner; Doctor of Philosophy, Business Administration; "The Political Landscape: A New Approach to Understanding Corporate Political Activity"; 2018.
- Wu Yen-Chun; Doctor of Philosophy, Industrial and Operations Engineering; University of Michigan; "Just-In-Time Manufacturing and External Logistics: Evidence from American Parts Suppliers"; 1999.
- Stephen V. Burks, Doctor of Philosophy, Economics; University of Massachusetts –
  Amherst; "The Origins of Parallel Segmented Labor and Product Markets: A
  Reciprocity-Based Agency Model with an Application to Motor Freight"; 1999.

In Process Thesis and Dissertation Committees

- Walter Ryley (Economics Department); Chair Aurelia Crant (Economics Department); Chair
- Dave Elniski (Department of Women & Gender Studies, University of Lethbridge, Alberta, Canada); Member

Course or Curriculum Development, last five years

- ECO 1400: Economic Inequality
- ECO 1600: Introduction to Economic Thought

Course Materials (unpublished)

"Strategic Analysis of Executive Leadership," a course taught at the National Fire Academy and developed for the Federal Emergency Management Agency (1990)

#### **RESEARCH**

Research in Progress

"Pay Incentives, Working Time, and Safety: Evidence from U.S. Intrastate Trucking Companies". With Ju Shengyang. In review; R&R.

#### **FUNDING**

Safe Rates: Data to Determine the Effect of Compensation on Motor Carrier Safety

Source of funds: International Brotherhood of Teamsters to Economics Department, Wayne State

University

Amount: \$10,500

Period of performance: 2019-2022

Role: Principal Investigator (with PhD student Walter Ryley)

#### **PUBLICATIONS**

Scholarly Books Published

• Sweatshops on Wheels: Winners and Losers in Trucking Deregulation. New York: Oxford University Press, 2000.

#### Monographs Published

• Panel on the Review of the Compliance, Safety, and Accountability (CSA) Program of the Federal Motor Carrier Safety Administration, Committee on National Statistics, Division of Behavioral and Social Sciences and Education, Transportation Research Board, & National

- Academies of Sciences Engineering Medicine. (2017). *Improving Motor Carrier Safety Measurement*. Washington: National Academies Press. ISBN 978-0-309-46201-3 | DOI 10.17226/24818. Summer 2017. With Panel members Joel B. Greenhouse, Sharon-Lise Normand (Committee Co-Chairs), Dan Blower, Linda Boyle, Michael Daniels, Don Hedeker, Brenda Lantz, Dan McCaffrey, Brisa Sanchez, Robert Scopatz, and Juned Siddique. <a href="http://www.nap.edu/24818">http://www.nap.edu/24818</a>
- Gillespie, Robin Mary; Andrew Krum; Darrell Bowman; Stephanie Baker and Michael H.
  Belzer. 2016. Bus Operator Workstation Design for Improving Occupational Health and
  Safety, Transportation Cooperative Research Program (TCRP). Washington: Transportation
  Research Board of the National Academies. National Academies of Science. 127 pages.
  http://www.trb.org/main/blurbs/174183;
  http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp\_rpt\_185.pdf
- Burks, Stephen V., Michael H. Belzer, KWAN Quon, Stephanie G. Pratt, and Sandra Shackelford. 2010. *Trucking 101: An Industry Primer*. In TRB Transportation Research Circular E-C146, edited by Transportation Research Board Committee on Trucking Industry Research (AT060). Washington: Transportation Research Board. December 22. 68 pages. <a href="http://onlinepubs.trb.org/onlinepubs/circulars/ec146.pdf">http://onlinepubs.trb.org/onlinepubs/circulars/ec146.pdf</a>
- National Research Council Committee for Review of the Federal Motor Carrier Safety Administration's Large Truck Crash Causation Study. 2003. With Forrest M.Council (chair); John R. Billing; Kenneth L. Campbell; James W. Dally; Anne T. McCartt; Hugh W. McGee; A. James McKnight; Jack Stuster; Steven J. Vaughn, and Frank R. Wilson. "Letter Report to Federal Motor Carrier Safety Administration Administrator Annette M. Sandberg." Washington, DC: Transportation Research Board, 66 pages. <a href="http://onlinepubs.trb.org/onlinepubs/reports/tccs\_sept\_2003.pdf">http://onlinepubs.trb.org/onlinepubs/reports/tccs\_sept\_2003.pdf</a>
- Truck Driver Occupational Safety and Health: 2003 Conference Report and Selective Literature Review. 2007. With Gregory M. Saltzman. Washington, DC: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services Publication No. 2007-120. 117 pages. <a href="http://www.cdc.gov/niosh/docs/2007-120/">http://www.cdc.gov/niosh/docs/2007-120/</a>
- Paying the Toll: Economic Deregulation of the Trucking Industry. Washington, D.C.: Economic Policy Institute. 1994. Briefing and Working Papers Series. <a href="https://www.epi.org/files/2014/paying-the-toll.pdf">https://www.epi.org/files/2014/paying-the-toll.pdf</a>

#### **Book Chapters**

- "Economic Liberalisation of Road Freight Transport in the EU and the USA" With Annette Thörnquist (Linköping University, Sweden). In *The Regulation and Management of Workplace Health and Safety: Historical and Emerging Trends*. Peter Sheldon, Sarah Gregson, Russell Lansbury, and Karin Sanders, editors. Routledge, an imprint of Taylor and Francis. 2020, pp. 52-79 (Chapter 4).
- "Labor and Human Resources in the Freight Industry." In *Intermodal Transportation: Moving Freight in a Global Economy*. Lester Hoel, Genevieve Giuliano, and Michael Meyer, editors. Publisher: Eno Transportation Foundation. May 2011. <a href="https://www.enotrans.org/wp-content/uploads/2019/05/IntermodalFreightTextbook\_compressed.pdf">https://www.enotrans.org/wp-content/uploads/2019/05/IntermodalFreightTextbook\_compressed.pdf</a>
- "The Next Move: Metropolitan Regions and the Transformation of the Freight Transport and Distribution System." With Susan Christopherson. In *Urban and Regional Policy and Its*

- *Effects*, edited by Nancy Pindus, Howard Wial, and Harold Wolman. Brookings Institution Press. 2009.
- "The Effects of Trucking Firm Financial Performance on Safety Outcomes." With Marta S. Rocha and Daniel A. Rodriguez. In *Transportation Labor Issues and Regulatory Reform*. James H. Peoples and Wayne K. Talley eds. Research in Transportation Economic Series. Rotterdam, The Netherlands: Elsevier Science Publishers, 2004, pp. 35-55.
- "Trucking: Collective Bargaining Takes a Rocky Road." In *Collective Bargaining in the Private Sector*, edited by Paul F. Clark, John T. Delaney, and Ann C. Frost. Champaign, IL: Industrial Relations Research Association, 2002, pp. 311-342.
- "Commentary on Railroad Deregulation and Union Labor Earnings." In *Regulatory Reform and Labor Markets*, edited by James Peoples. Norwell, MA: Kluwer Academic Publishers, 1997, pp. 155-182.
- "Labor Market Regulation: Balancing the Benefits and Costs of Competition." With Dale Belman. In *Government Regulation of the Employment Relationship*, edited by Bruce Kaufman. Madison, Wisconsin: Industrial Relations Research Association, 1997, pp. 179-220.
- "The Motor Carrier Industry: Truckers and Teamsters under Siege." In *Contemporary Collective Bargaining in the Private Sector*, edited by Paula B. Voos. Madison, Wisconsin: Industrial Relations Research Association, 1994, pp. 259-302.

#### Peer-Reviewed Journal Articles Published

- "Compensation and Crash Incidence: Evidence from the National Survey of Driver Wages."
   With Walter Ryley. <u>The Economic and Labour Relations Review</u> 34(1). March 2023, forthcoming.
- "Describing economic benefits and costs of nonstandard work hours: A scoping review".
   With Imelda S. Wong, Quay Brian, and Emily Irvin. American Journal of Industrial Medicine. 22 October 2021. https://doi.org/10.1002/ajim.23302
- "The Economics of Long Work Hours: How Economic Incentives Influence Workplace Practice." *Industrial Health*, 58(5), 399–402. September 2020. Editorial. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7557409/pdf/indhealth-58-399.pdf">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7557409/pdf/indhealth-58-399.pdf</a>
- "Excessive work hours and hypertension: Evidence from the NIOSH survey data." With Takahiko Kudo. *Safety Science* 129. September 2020. doi:10.1016/j.ssci.2020.104813
- "Safe Rates and Unpaid Labor: Non-driving pay and truck driver work hours." With Takahiko Kudo. *Economic and Labour Relations Review* 30(4), 532–548. December 2019.
- "The association between truck driver compensation and safety performance." *Safety Science* 120, 447-455. December 2019. doi:10.1016/j.ssci.2019.07.026
- "Returns to Compensation in Trucking: Does Safety Pay?" With Michael Faulkiner. *The Economic and Labour Relations Review*. 30(2): 262-284. Published OnlineFirst March 20, 2019. https://journals.sagepub.com/doi/10.1177/1035304619833859.
- "Work-Stress Factors Associated with Truck Crashes: An Exploratory Analysis." *Economic and Labour Relations Review* 39(2), 262-284. August 2019.
- "Why Do Long Distance Truck Drivers Work Extremely Long Hours?" With Stanley A. Sedo. *The Economic and Labour Relations Review*, 29(1), 59–79. 2018. doi:10.1177/1035304617728440

- "Tolling and Economic Efficiency: Do the pecuniary benefits exceed the safety costs?" With Peter F. Swan. *Public Works Management & Policy*, 18(2), 167–84. 2013.
- "Environmental determinants of obesity-associated morbidity risks for truckers." *International Journal of Workplace Health Management*. With Yorghos Apostolopoulos, Sevil Sönmez, and Mona M Shattell. 5(2), 120 138, 2012.
- "Supply Chain Security: Agency Theory and Port Drayage Drivers." With Peter F. Swan. *The Economic and Labour Relations Review* 22(1), 41-64. May 2011.
- "Worksite-Induced Morbidities Among Truck Drivers in North America: A Comprehensive Literature Review." With Yorghos Apostolopoulos, Sevil Sönmez, and Mona M. Shattell. *American Association of Occupational Health Nurses [AAOHN] Journal.* 58(7), 285-96. 2010.
- "Empirical Evidence of Toll Road Traffic Diversion and Implications for Highway Infrastructure Privatization." With Peter F. Swan. *Public Works Management & Policy* 14(4), 351-73. April 2010.
- "Pay Incentives and Truck Driver Safety: A Case Study." With Daniel A. Rodriguez and Felipe Targa. *Industrial and Labor Relations Review*, 59(2), 205-225. January 2006.
- "Effects of Truck Driver Wages and Working Conditions on Highway Safety: Case Study." With Daniel Rodríguez, Marta Rocha, and Asad J. Khattak. *Transportation Research Record: Journal of the Transportation Research Board*, no. 1833 (Freight Policy, Economics, and Logistics; Truck Transportation), 2003, pp. 95-102.
- "The Case for Strengthened Motor Carrier Hours of Service Regulations." With Gregory M. Saltzman. *Transportation Journal*, 41(4), 51-71. Summer 2002.
- "Technological Innovation and the Trucking Industry: Information Revolution and the Effect on the Work Process." *Journal of Labor Research*, 23(3); 375-396. Summer 2002.
- "Government Oversight and Union Democracy: Lessons from the Teamsters Experience." With Richard Hurd. *Journal of Labor Research* 20(3), 343-365. Summer 1999
- "Collective Bargaining in the Trucking Industry: Do the Teamsters Still Count?" *Industrial and Labor Relations Review* 48(4), 636-655. July 1995.

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- "Truck drivers are overtired, overworked and underpaid." The Conversation. July 25, 2018. https://theconversation.com/truck-drivers-are-overtired-overworked-and-underpaid-100218.
- "Truck Driver Security Issues: The New World of Secure Surface Transportation." *Perspectives on Work: The Magazine of the IRRA*, Vol. 6, No. 1; June 2002, pp. 13-15.
- "Life on the Road Captured in Accurate Surveys." Alexandria, VA: *Transport Topics*. October 22, 2001, page 9.
- "Truckers' Travails: Deciphering a Decade of Decline." Somerville, MA: *Dollars & Sense*, No. 201; September/October 1995, pp. 20-23.
- "Should LIRR Come Under Anti-Strike Law?" Melville, NY: *Newsday*. Sunday, June 19, 1994, page 35.
- "Keep Courts Out of Labor Fights." Journal of Commerce. Thursday, February 24, 1994.
- "An American Version of Co-Determination." *Dialogues* 1:2. Madison, Wisconsin: Industrial Relations Research Association; November 1993, pp. 1-2.

- "Neoliberalism and Competitive Economic Pressure: The Effects on Safety" (Keynote 1; 165-179). *Neoliberalism's Threat to Safety and Transport Workers' Response An International Symposium*. October 28, 2015.
- "Industrial Relations Experiments in China: Balancing Equity and Efficiency the Chinese Way." With PAN Shih-Wei 潘世偉, and YU Nan 于楠. 2008 Industry Studies Conference 1, no. 5 (2008).
- "Empirical Evidence of Toll Road Traffic Diversion and Implications for Highway Infrastructure Privatization." With Peter F. Swan, The Pennsylvania State University—Harrisburg. *Proceedings of the Transportation Research Board Annual Meeting*, January 2008.
- "Sweatshops on Wheels: The Labor Relations Crisis in American Trucking." Presented at conference entitled "Industrial Relations and International Labor Standards under Globalization" at Renmin University, Beijing, China. April 1-2, 2006.
- "Pay Incentives and Truck Driver Safety: Case Study." With Daniel A. Rodriguez and Felipe Targa. Abstract published in *Compendium of Papers* CD-ROM of the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, January 12-16, 2003, Washington, DC.
- "Effects of Truck Driver Wages and Working Conditions on Highway Safety: Case Study." With Daniel Rodríguez, Marta Rocha, and Asad J. Khattak. Abstract published in *Compendium of Papers CD-ROM of the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board*, January 12-16, 2003, Washington, DC.
- "Discussion" of papers presented in "Labor Studies/Labor Unions, Collective Bargaining,
  Dispute Resolution and Labor and Employment Law Refereed Papers Symposium".

  Proceedings of the 54th Annual Meeting of the Industrial Relations Research Association,
  January 2-5, 2003, Washington, DC. Champaign, IL: Industrial Relations Research
  Association, 2003, pp. 294-295.
- "Worker Representation in the Truckload Sector: What Do Truckers Want?" *Proceedings of the 53<sup>rd</sup> Annual Meeting of the Industrial Relations Research Association*, January 5-7, 2001, New Orleans, Louisiana. Champaign, IL: Industrial Relations Research Association, 2001, pp. 133-143.
- "Discussion" of papers presented in "Labor Markets and Economics, and International Refereed Papers" session. *Proceedings of the 53<sup>rd</sup> Annual Meeting of the Industrial Relations Research Association,* January 5-7 2001, New Orleans, Louisiana. Champaign, IL: Industrial Relations Research Association, 2001, pp. 336-338.
- "Deregulation and Decentralization: The Impact on Employment Relations." *Proceedings of the Twenty First Century Labor Studies International Academic Conference*," Chinese Culture University. Taipei, Taiwan. October 12-13, 2000, pp. 1-45.
- "Labor Law Reform: Taking a Lesson from the Trucking Industry." *Proceedings of the Forty-Seventh Annual Meeting of the Industrial Relations Research Association*. Washington, DC. January 6-8, 1995. Madison, Wisconsin: Industrial Relations Research Association, 1995; pp. 403-413.
- "Collective Bargaining in the Trucking Industry: The Effects of Institutional and Economic Restructuring." Abstract in *Proceedings of the 45th Annual Meeting of the Industrial Relations Research Association*. Anaheim, California. January 5-7, 1993. Madison, Wisconsin: Industrial Relations Research Association, 1993; pp. 539-540.

• "Discussion" on "Strategic Diversity in Union Political Action: Implications for the 1992 Elections," by Richard W. Hurd and Jeffrey E. Sohl. *Proceedings of the 44th Annual Meeting of the Industrial Relations Research Association*. New Orleans, LA. January 3-5, 1992. Madison: Industrial Relations Research Association, 1992; pp. 314-316.

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- Learning from Saturn: A look at the boldest experiment in corporate governance and employee relations, by Saul A. Rubinstein and Thomas A. Kochan. Ithaca, NY: Cornell University Press. 2001. Industrial and Labor Relations Review, Fall 2004.
- Reforming the Chicago Teamsters: The Story of Local 705, by Robert Bruno. Dekalb, IL: Northern Illinois University Press. 2003. Industrial and Labor Relations Review, Fall 2004.
- Strategic Negotiations: A Theory of Change in Labor-Management Relations, by Richard E. Walton, Joel E. Cutcher-Gershenfeld, and Robert B. McKersie. Boston: Harvard Business School Press, 1994. Industrial and Labor Relations Review, Vol. 50, No. 3; April 1997, pp. 511-512.
- Pedal to the Metal: The Work Lives of Truckers, by Lawrence J. Ouellet. Philadelphia: Temple University Press, 1994. Industrial and Labor Relations Review, Vol. 49, No. 4; July 1996, pp. 751-752.
- Collision: How the Rank and File Took Back the Teamsters, by Kenneth C. Crowe. New York: Charles Scribners' Sons, 1993. Industrial and Labor Relations Review, Vol. 48, No. 4; July 1995, pp. 870-873.
- Road Transport Before the Railways: Russell's London Flying Waggons, by Dorian Gerhold. Cambridge: Cambridge University Press, 1993. Industrial and Labor Relations Review, Vol. 48, No. 1, October 1994; pp. 187-188.
- *Hoffa*, by Arthur A. Sloane. Cambridge, MA: The MIT Press, 1991. *Leadership Quarterly*, Vol. 5. No. 1; 1994, pp. 85-88.
- Just the Working Life: Opposition and Accommodation in Daily Industrial Life, by Marc Lendler. Armonk, N.Y.: M. E. Sharpe, 1990. Industrial and Labor Relations Review, Vol. 45, No. 2; January 1992, pg. 380.

#### Conference and Meeting Papers, Presentations, and Lectures

- "The Economics of Long Work Hours: Using Incentives to Change Behavior and Fix the Truck Driver Labor Market". January 19, 2023. Invited presentation to the Supply Chain Working Group, National Economic Council, Executive Office of the President. Eisenhower Old Executive Office Building, Washington, DC.
- "A Brief Research Overview: The Economics of Long Work Hours: Using Incentives to Change Behavior" TRB Committee on Impacts of Alternative Compensation Methods on Truck Driver Retention and Safety. January 18, 2023. Invited and sponsored by Transportation Research Board, Washington, DC.
- "Long Work Hours and Low Pay: How Trucking Gets Us Back to Basics". Open Markets Institute. Zoom. April 12, 2022
- "Describing economic benefits and costs of nonstandard work hours: A scoping review". Presented on behalf of co-authors Imelda S. Wong, Quay Brian, and Emily Irvin. Truck and Bus Operator Health and Wellness Subcommittee, ACS60(3). Transportation Research Board 101st Annual Meeting. Washington, DC. 11 January 2022.

- "Building Back Better in Commercial Road Transport: Markets Require Fair Labor Standards." Motor Carrier Safety Advisory Council, US DOT FMCSA. July 19, 2021. Washington DC via Zoom.
- "Building Back Better in Commercial Road Transport: Markets Require "Safe Rates" Regulation". Roundtable on Truck Driver Retention and Supply Chain; US Department of Transportation. July 8, 2021. Organized by Administrator of FMCSA and attended by Secretaries of Transportation and Labor. Washington DC via Zoom.
- "Economic Liberalisation of Road Freight Transport in the EU and the USA." 19th International Labour and Employment Relations Association World Congress, Lund, Sweden, 24 June 2021 Session 2B:9 Comparative Perspectives on Precarity in the Low Paid Sector. Via Zoom.
- "Safe Rates and Public Policy: Solutions for the Trucking Industry". *Melding People and Technology to Achieve the High-Road in Key Industries: Building Forward Better in the Distribution Sector*. Sponsored by the Keystone Research Center and The Heinz Endowments. March 4-5, 2021. Via Zoom.
- "Economic Incentives and Market Pressure: Reducing Unsafe and Unhealthy Work Hours."
   Transportation, Warehouse, and Utility Council NIOSH NORA. September 22, 2020.
   Presentation begins at 16:00 minutes into the recording. <a href="https://waynestateprod-my.sharepoint.com/:v:/g/personal/ai6896\_wayne\_edu/ES9TMm1Wso9CjPt-581CreEBMjEBzGIQxOfS2YS0IQCFrw">https://waynestateprod-my.sharepoint.com/:v:/g/personal/ai6896\_wayne\_edu/ES9TMm1Wso9CjPt-581CreEBMjEBzGIQxOfS2YS0IQCFrw</a>
- "The Economics of Long Work Hours: Using Incentives to Change Behavior." Keynote presentation to Healthy Work Design and Well-Being National Occupational Research Agenda Cross Sector Program. National Institute for Occupational Safety and Health. April 23, 2020. <a href="https://www.cdc.gov/nora/councils/hwd/webinar.html">https://www.cdc.gov/nora/councils/hwd/webinar.html</a>
- "Pay Rates and Motor Carrier Safety: Testing Intrastate Trucking Companies Using MCMIS." Transportation Research Board ACS60 (former ANB70) Truck and Bus Safety Committee. Washington. January 15, 2020
- "Excessive Work Hours & Hypertension: Evidence from the NIOSH Survey Data." Transportation Research Board ANB70 Truck and Bus Operator Health and Wellness Subcommittee. Washington. January 14, 2020.
- "Safe rates and unpaid labor: Non-driving pay and truck driver work hours." Transportation Research Board ACS60 (former ANB70) Truck and Bus Safety Committee, Carrier Safety Management Subcommittee. Washington. January 14, 2020
- "The Economics of Long Work Hours." Keynote for *Twenty-Fourth International Symposium on Shiftwork & Working Time*. September 11, 2019. Coeur d'Alene, Idaho. Short version of this Keynote presented to NIOSH: Working Hours, Sleep & Fatigue: Meeting the Needs of American Workers & Employers TWU Sector Council. Coeur d'Alene, Idaho. September 14, 2019.
  - https://www.eiseverywhere.com/file\_uploads/5bf599c679bb4aac68497c19b68d83ba\_190911Belzer\_EconOfFatigue.pdf
- "Truck drivers are overtired, overworked and underpaid." Labor@Wayne and Economics Department Luncheon Seminar. January 25, 2019.
- "Truck drivers are overtired, overworked and underpaid." Truck and Bus Safety Committee and Trucking Industry Research Committee, Transportation Research Board Annual

- Meeting, January 16, 2019; and Michigan Motor Carrier Advisory Board. Michigan State Police Headquarters, Lansing, MI November 15, 2018.
- "Why Do Long Distance Truck Drivers Work Extremely Long Hours? They do it for the money." *Moving America Forward: Next Generation of Truck Freight Transport Summit.*Mobility21 Center at the Engineering School of the University of Pennsylvania, Philadelphia. October 24-25, 2018.
- "Trucking impact on US economy/driver demand." Virginia Tech Transportation Institute and National Science Foundation Workshop: *Impact of Autonomous Trucks on the US Economy*. June 28/29, 2018. NSF Headquarters in Arlington, VA.
- "Australian Safe Rates Campaign: History, Research, Action." Amalgamated Transit Union U.S. Legislative Conference. Silver Spring, MD. June 5, 2018.
- "Autonomous Trucks: Effects on Trucking Industry Structure, Environment, Hours of Service, Employment, Economics." Presented to the Freight Transportation Economics and Regulation Committee at the Annual Meeting of the Transportation Research Board. Washington, DC. January 9, 2018.
- "Why Do Long Distance Truck Drivers Work Extremely Long Hours?" Presented to Truck and Bus Safety Committee and Trucking Industry Research Committee, Transportation Research Board Annual Meeting. Washington, DC. January 8-9, 2018.
- "Work-Stress Factors Associated with Truck Crashes." Presented to the Alternative Compliance Subcommittee of the Truck and Bus Safety Committee at the Annual Meeting of the Transportation Research Board. Washington, DC. January 8, 2018.
- "Truck Drivers and Agricultural Freight Movement: Food Loss in Transit." Conference: Farm-to-Retail Food Loss in Produce: An Exploratory Discussion of the Causes and Economic Drivers of Change, hosted by the Economic Research Service US Department of Agriculture. Washington, DC. December 12, 2017.
- "North America's Low-Cost Inland Freight Corridor." Detroit Chinese Business Association US China Auto Expo Forum 2017, Dearborn, MI. November 8, 2017.
- "Michigan Inland Port and Freight Corridor." Detroit Economic Growth Corporation and Detroit Land Bank. Detroit, MI. September 26, 2017.
- "Intermodal Freight Transport: Challenges and Opportunities." Norfolk Southern Railroad's *11th Annual Drayage Summit*; Chicago, IL. June 21–22, 2017.
- Presentation on trends in logistics and labor relations at the *Logistics Convening* meeting of the Labor Research & Action Network conference, held at the International Brotherhood of Teamsters Headquarters in Washington, DC. June 7, 2017.
- "Michigan Inland Port and Freight Corridor." Kiwanis Club of East Lansing, MI. April 17, 2017.
- "Truck Driver Compensation: How Compensation Variables Determine Motor Carrier Crash Rates." Transportation Research Board 2016 Annual Meeting Session 856: Rates and Regulation: Policy Implications of the Economic Approach to CMV Safety. January 11, 2017
- "Economic and Regulatory Tools to Achieve Decent Work in the Global Supply Chain." International Transport Workers' Federation Road Transport Workers' Section Conference, Brussels, 8 December 2016.
- "Economic Competition, Commercial Motor Vehicle Safety, and Driver Health." National Institute for Occupational Safety and Health—National Occupational Research Agenda, Transport, Warehouse, and Utilities Council Sector Meeting. May 24, 2016; Transportation

- Research Board 95<sup>th</sup> Annual Meeting. Workshop 196: Convention Center Room 144B. January 10, 2016
- "Great Lakes Global Freight Gateway: Michigan Inland Port and Freight Corridor." Detroit Association of Business Economists. Detroit Branch of the Federal Reserve Bank of Chicago, Detroit, November 12, 2015.
- "Neoliberalism and competitive economic pressure: The effects on safety." Keynote Address to *International Symposium on Public Safety in the Transport Sector*. October 27, 2015. Republic of Korea National Assembly Building. Seoul, South Korea.
- "The Economics of Safety and Health: Motor Carrier Safety & Truck Driver Safety & Health." *International Symposium on Public Safety in the Transport Sector*. October 27, 2015. Republic of Korea National Assembly Building. Seoul, South Korea.
- "Sweatshops on Wheels: Trucking Industry Deregulation and Low-Road Competition." Session: Commercial Vehicles History and Development. Society of Automotive Engineers, 2015 Commercial Vehicle Engineering Congress, Rosemont, IL, October 7, 2015.
- "Safe Rates: Developing a Global Agenda on Truck Driver Safety & Health." National Institute for Occupational Safety and Health—National Occupational Research Agenda, Transport, Warehouse, and Utilities Council Sector Meeting. NIOSH Headquarters, Washington, DC. July 7, 2015.
- "The Economics of Safety and Health: Motor Carrier Safety & Truck Driver Safety & Health." ZhongNan University of Economics and Law. Wuhan, China. June 26, 2014.
- "The Economics of Safety and Health: Motor Carrier Safety & Truck Driver Safety & Health." Second Meeting of the Panel on Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health. Keck Center of the National Academies, Washington, DC. May 28, 2014.
- "Industrial relations experiments in China: Balancing equity and efficiency the Chinese way." School of Public Administration, ZhongNan University of Economics and Law. May 2015. Wuhan, China.
- "Michigan Inland Port and Freight Corridor." Panel session: "The Future of Rail". *Michigan Association of Counties Legislative Conference*, Lansing, March 25, 2014.
- "Port Labor Representation in Perspective." *Journal of Commerce* annual *Trans-Pacific Maritime Conference*. Long Beach, CA. March 4, 2014.
- "Michigan Inland Port and Freight Corridor." *Atlantic Provinces Transportation Forum*. Halifax, Nova Scotia, CA. June 12, 2013; Transportation Club of Toledo. Toledo, OH. May 7, 2013.
- "Truck Crashes and Work-Related Factors Associated with Drivers and Motor Carriers."
   National Institute for Occupational Safety and Health, Transportation, Warehouse, and Utilities Sector Council. Washington, DC. February 12, 2013.
- "Michigan Inland Port and Freight Corridor." Wayne County Economic Development and Growth Engine. Detroit, MI. December 5, 2012; Port of Monroe Executive Team. Monroe, MI. December 3, 2012; Oakland University Economics Department. November 9, 2012; Hotelling Memorial Lecture, Lawrence Technological University. October 24, 2012 https://youtu.be/1qe9JjH0iXw.
- "Great Lakes Global Freight Gateway." Detroit Works. August 2, 2012.
- "The Effects of Economic Forces on Motor Carrier Safety: Australian Regulatory Change." Transportation Research Board of the National Academies. January 25, 2012.

- "Economic Forces in Motor Carrier Safety: Regulatory Change in Australia." Transportation Research Board of the National Academies. January 24, 2012.
- "The Detroit Inland Port, Freight Corridors, and Michigan Freight Gateway." State Dept Foreign Press Center, Reporting tour of foreign journalists. Wayne State University, Detroit; January 10, 2012.
- "The Effects of Economic Forces on Motor Carrier Safety: Labor economics and fatigue." Amalgamated Transit Union, AFL-CIO/CLC International Headquarters, Washington DC. Presidents' meeting. December 19, 2011.
- "The Effects of Economic Forces on Motorcoach Bus Safety." Amalgamated Transit Union, AFL-CIO/CLC International Headquarters, Washington DC. Presidents' meeting. December 19, 2011.
- "The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety." *International Transport Workers Federation Health & Safety Conference*. San Francisco, California, December 12, 2011.
- "The Effects of Economic Forces on Motor Carrier Safety: Labor economics and fatigue." *Fatigue in Transit Operations Conference*. Transportation Research Board. Washington, DC. October 12, 2011.
- "The Michigan Inland Port and Freight Corridor." West Michigan Policy Forum. Michigan: The logistics hub of the Mid-west. Grand Traverse Resort | Traverse City, MI; October 3 2011.
- "The Detroit Inland Port and Halifax Freight Corridor." Detroit Revitalization Fellows Program. Wayne State University, Detroit; August 17, 2011.
- "The Effects of Economic Forces on Motor Carrier Safety." *Michigan Safety Conference*, Lansing, MI. April 20, 2011.
- "Transforming Michigan into a Global Freight Gateway: The Detroit Inland Port." Engineering Society of Detroit; Southfield. March 9, 2011.
- "Transportation: Next Steps." Dalhousie University–Michigan State University conference. Halifax, June 20, 2011.
- An Economist's Perspective on "The Sustainable Transportation Supply Chain." "Developing Global Sustainability: U.S./China Partnerships" Conference. University of Michigan. May 21, 2011.
- "Drivers of Freight Policy and Practices That Create Conflicts." Transportation Research Board Annual Meeting Event 496: Freight's Contribution to Liveability and Economic Development, Part 2: Policy and Planning for Meeting Challenges of Sustainability and Economic Development in the U.S. Freight Transportation System. Washington, DC. January 25, 2011.
- "Transforming Michigan Into A Global Freight Gateway: Making Detroit a Premier Midwest Inland Port." Doing Things Differently in Detroit. Detroit. October 6, 2010; Detroit Strategic Framework Team. Wayne State University, Detroit. September 13, 2010; Rick Snyder for Michigan Team. Ann Arbor. August 30, 2010.
- "Economic Development and Governance in Detroit." Detroit Charter Revision Commission. Mayflower Church. July 27, 2010.
- "Trucking Perspective on Congestion Pricing." Transportation Research Board Joint Summer Meeting. Minneapolis. Congestion Pricing Workshop: Lessons Learned. July 14, 2010.

- "Transforming Michigan into a Global Freight Gateway." In "Understanding the Contributions of Freight Corridors" associated with Multimodal Freight and Waterways. Transportation Research Board Joint Summer Meeting. July 12, 2010. Minneapolis, MN.
- "Empirical Evidence of Toll Road Traffic Diversion and Implications for Highway Infrastructure Privatization." Transportation Research Board Joint Summer Meeting. Minneapolis. July 13, 2010. In "Beyond the Fuel Tax: Trucking & the Politics and Research of Highway Funding." With Peter F. Swan.
- "Transforming Michigan into a Global Freight Gateway: Detroit to the World Via Montreal and Halifax." Presentation to Wayne County Executive Robert Ficano and Wayne County economic development staff. Guardian Building. Detroit, MI. June 14, 2010; Congressman John Conyers' Town Hall Meeting. "State of the Economy: A Discussion About Job Creation and Foreclosure Relief." University of Detroit-Mercy. Detroit, MI. June 5, 2010.
- "Economic Forces and Motor Carrier Safety: Pay and Work Pressure." Transport Workers' Union Federal Council. Canberra, Australia. May 7, 2010 (via Skype).
- "Transforming Michigan Into a Global Freight Gateway: Detroit to the World Via Montreal
  and Halifax." Webinar hosted by Michigan State University Land Policy Institute. Wayne
  State University. April 29, 2010; FOCIS Conference: The Michigan Economy: Will it Get
  Better? Can it Get Worse? Wayne State University. April 6, 2010.
  <a href="https://focis.wayne.edu/rivlin/conference-description">https://focis.wayne.edu/rivlin/conference-description</a>
- "The Effects of Economic Forces on Motorcoach Bus Safety." Transportation Research Board Annual Meeting, Organizing Subcommittee on Bus and Motorcoach Safety. Washington, DC. Jan 12, 2010. Washington.
- "The Effects of Economic Forces on Motor Carrier Safety." Transportation Research Board Annual Meeting Session 273: "Economics of Transportation Safety: Market Failures and Regulatory Solutions." January 11, 2010. Washington; Motor Carrier Safety Advisory Committee of the Federal Motor Carrier Safety Administration, U.S. Department of Transportation. Washington, DC: December 7, 2009.
- "Transforming Michigan into a Global Freight Gateway: Michigan to Halifax to the World." Wayne State University Economics Department Seminar. December 3, 2009.
- "Intermodal Freight Expansion in the Motor City: Linking Michigan and Atlantic Canada." Co-authored with Marc Howlett (presenter). National Urban Freight Conference. Long Beach, CA. October 24, 2009.
- "Transforming Michigan into a Global Freight Gateway: Michigan to Halifax to the World." Working Paper 2. Atlantic Gateway Initiative Conference *Seizing the Initiative*. World Trade & Convention Centre in Halifax. October 19, 2009. With Marc Howlett. Halifax, Nova Scotia, Canada.
- "Economic Forces and Motor Carrier Safety: Pay and Work Pressure." *SafeRates Summit*. Sydney, NSW, Australia. July 29, 2009.
- "Benefit/Cost Analysis: Using Economics to Support Occupational Safety and Health." *NIOSH Science Seminar*. Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. Cincinnati, OH (broadcast also to Denver, Morgantown, and Washington DC audiences). June 4, 2009.
- "Strategic Location and Economic Development: Detroit-Windsor as a Global Freight Hub." Presented at *Hub'09 International Multimodal Conference*, hosted by WindsorEssex Development Commission. Caesars—Windsor. May 6, 2009.

- "The Effects of Economic Forces on Motor Carrier Safety: Labor economics and fatigue." Presented at the *International Conference on Fatigue Management in Transport Operations*. Boston, MA. March 25, 2009.
- "Cross Border Cooperation and Economic Development: Detroit-Windsor as Global Freight Hub." *19th Wayne-Windsor Canadian Studies Symposium*. "Cross-Border Transportation at the Detroit River: Trade, Security and US-Canada Cooperation." University of Windsor, Windsor, Ontario. February 27, 2009.
- "Impact of regulation and deregulation, industry structure, pay structure, and hiring practices on road safety." *International Conference on Road Safety at Work*. Sponsored by National Institute for Occupational Safety and Health and World Health Organization. Washington, DC. February 17, 2009.
- "The Detroit Inland Port and Halifax Freight Corridor." *Atlantic Gateway Initiative Summer Institute*, Centre for International Trade and Transportation (CITT) at Dalhousie University. Halifax, Nova Scotia. August 29, 2008.
- "If you build it, will they come?" With Rob Harrison. *Atlantic Gateway Initiative Summer Institute*, Centre for International Trade and Transportation (CITT) at Dalhousie University. Halifax, Nova Scotia. August 29, 2008.
- "Private Interest and Public Purpose of PPPs: What are we trying to accomplish?" In Private Ownership of Critical Infrastructure: What are the benefits and the pitfalls? Transportation Research Board Summer Meeting. Baltimore, MD, June 17, 2008.
- "The Trucking Industry: What put us on the low road? How do we restore good jobs?" In High-Road Competitive and Employment Strategies: Pathways to the American Dream across U.S. Industries. *14th Annual Labor-Management Conference*, Labor and Employment Relations Association Track. Washington, DC, June 10, 2008.
- "Environmental Economics: Using Market Efficiency to Create Equity in Developing a
  Course of Action for Ameliorating Air Emissions Associated with the Import Supply Chain."
  Transportation Research Board Annual Meeting, Session 157. January 13, 2008,
  Washington, DC.
- "Freight Transportation and Economic Development: Who Pays? Who Profits?" With Susan Christopherson. Jointly presented at workshop *Urban and Regional Policies and Its Effects* at the Urban Institute, and cosponsored by Brookings Institution and George Washington University Institute of Public Policy and Trachtenberg School of Public Policy and Public Administration in Washington, DC. June 6, 2008.
- "Environmental Economics: Using Market Efficiency to Create Equity in Developing a
  Course of Action for Ameliorating Air Emissions Associated with the Import Supply Chain."
  Transportation Research Board Annual Meeting, Session 157. January 13, 2008,
  Washington, DC.
- "Chinese Industrial Relations: What it means for American labor." 32nd Annual Teamsters for a Democratic Union Rank & File Convention. November 3, 2007. Chicago, IL.
- "NAFTA: The implications of opening the border to Mexican trucking operations." 32nd Annual Teamsters for a Democratic Union Rank & File Convention. Chicago, IL. November 3, 2007.
- "Economic Issues in Border Security: The Perspective of Private Sector Trucking." Homeland Security and Canada-U.S. Border Trade: Implications for Public Policy and Business Strategy. Windsor, Ontario Canada October 26, 2007.

- "Full International Truck Operations across the Mexican Border: Impacts on Drivers and Motor Carriers." Tennessee Employment Relations Research Association, 10th Annual Conference. 19 October 2007. Tullahoma, Tennessee.
- "The Trucking Industry: Can we create a high road in the face of destructive competition?" Tennessee Employment Relations Research Association, 10th Annual Conference. 19 October 2007. Tullahoma, Tennessee.
- "China's New Labor Contract Law: What it means for global business & labor." Tennessee Employment Relations Research Association, 10th Annual Conference. 18 October 2007. Tullahoma, Tennessee.
- "China's New Labor Contract Law: What it means for global business & labor." Detroit Area Labor and Employment Relations Association (LERA). 4 October 2007. Southfield, MI.
- "Trucking Occupational Health and Safety: Balancing Equity for Truck Drivers and Other Highway Users with Efficiency and Growth." World Health Organization Working Group on Motor Vehicle Injury Prevention and Control in South Asia. New Delhi, India. August 30, 2007.
- "Empirical Evidence of Toll Road Traffic Diversion and Implications for Highway Infrastructure Privatization." With Peter F. Swan. Transportation Research Board Trucking Industry Research Committee. Chicago, IL. July 9, 2007.
- "China's New Labor Contract Law: What it may mean for global business and labor." Committee on Trucking Industry Research. Transportation Research Board Summer Meeting. Chicago, IL. July 9, 2007.
- "The Trucking Industry: Can we create a high road in the face of destructive competition?" Labor and Employment Relations Association National Policy Forum. Hotel Washington, Washington, DC. June 15, 2007.
- Lecture Series on Industrial Relations. Jilin University Business School, Department of Human Resources. Changchun, Jilin Province, People's Republic of China. Weekly or biweekly, March and April, 2007.
- "Port Driver Employment: The Weak Link in the Freight Security Chain." 2007 Annual Meeting of the Transportation Research Board. Washington, DC. January 24, 2007.
- "An Emerging Transformation of the Chinese Industrial Relations System? A Case Study of a Large State-Owned Auto Company." With Pan Shih-wei. Annual Meeting of the Labor and Employment Relations Association and at the Automobile Industry Council of the LERA. Chicago, IL, January 4-7, 2007.
- "Globalization and Industrial Relations: The Challenge to Labor Standards." National Chung Cheng University. Chaiyi, Taiwan November 10, 2006.
- "Efficiency, Equity, and Voice: Ethics and the Employment Relationship." College of Commerce. National Chengchi University. Taipei, Taiwan November 9, 2006. Institute of Labour Science Studies, Chinese Culture University, Taipei City, Taiwan November 8, 2006.
- "Globalization and Industrial Relations: The Challenge to Labor Standards." Department of Public Administration, International Master's Program in Taiwan Studies, College of Social Sciences, National Cheng Chi University. Taipei, Taiwan November 6, 2006.
- "Liberalization and the Effects on Health and Safety." Institute of Labour Studies, National Chengchi University. Taipei, Taiwan November 2, 2006.

- "Foundations of Industrial Relations: Globalization, Industrial Relations, and Labor Standards." Institute of Labour Studies, National Chengchi University. Taipei, Taiwan November 1, 2006.
- "Globalization and Industrial Relations: The Cube Root of Labor Standards. Institute of European and American Studies, Academia Sinica, Taipei, Taiwan November 1, 2006.
- "The Institutions of the Employment Relationship and Determinants of Industrial Relations Outcomes." Institute of Labour Studies, National Chengchi University. Taipei, Taiwan October 26, 2006.
- "What Do Unions Do? What Should Unions Do?" Institute of Labour Studies, National Chengchi University. Taipei, Taiwan October 26, 2006.
- "Inequality and the Ethics of the Employment Relationship," Institute of Labour Studies, National Chengchi University. Taipei, Taiwan October 19, 2006.
- "The History of the 'Labor Problem' in Industrial Societies, with Emphasis on the U.S." Institute of Labour Studies, National Chengchi University. Taipei, Taiwan October 12, 2006.
- "Foundations of Industrial Relations: The Theory of Industrial Relations." Institute of Labor Studies, National Chengchi University. Taipei, Taiwan October 5, 2006.
- "Efficiency, Equity, and Voice: Ethics and the Employment Relationship." Department Business Administration, School of Management, National Central University. Jhongli City, Taoyuan County, Taiwan September 29, 2006.
- "The Evolution of Labor Law in the United States: A Comparative Perspective." Department Labor Law, Law School, Jilin University. Changchun, Jilin Province, P.R.C. August 28, 2006.
- "Industry Studies: The Gateway to Industrial Relations Research in Market Economies." Department of Human Resources, Business School, Jilin University. Changchun, Jilin Province, P.R.C. August 24, 2006.
- "The Roots of Globalization and International Trade." Presentation to officers and members of United Auto Workers Local 889. Detroit, MI. August 2, 2006.
- "Deregulation, Contingent Pay, and Subcontracting: Safety and Health in the U.S. Trucking Industry." Presented at "Research on Workplace Health and Safety: From the Core to the Margins." Memorial University of Newfoundland, St. John's, Newfoundland and Labrador, Canada. June 9, 2006.
- "Effects on Professional Practice: Highway transportation." Public Forum on OMB's
  Proposed Risk Assessment Bulletin: Implications for Practice Inside and Outside
  Government. A workshop sponsored by: Society for Risk Analysis, Society of
  Environmental Toxicology and Chemistry in North America, Society of Toxicology, and
  International Society of Regulatory Toxicology and Pharmacology. Washington, DC: May
  23-24, 2006.
- "Sweatshops on Wheels: The Labor Relations Crisis in American Trucking." *International Symposium on Labor Relations and Labor Standards under Globalization*. School of Labor and Human Resources of Renmin University. Beijing, P.R.C. April 2, 2006.

- "The Market for Trucking Services: Efficient Market or Risk Shifting?" In Session 701: "Who's Left Holding the Bag? Cost Pass-throughs in Trucking." Presented at 85<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 25, 2006.
- "Impact of Pricing on Congestion Management." In Session 212: Freight Systems Capacity Issues, Part 1: Impact of Pricing on Congestion Management. Presented at 85<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 23, 2006.
- "Workforce Choices: Pennsylvania Logistics & Transportation." Keynote presentation to Pennsylvania Workforce Investment Board, Logistics and Transportation Regional Industry Partnership meeting. October 11, 2005. Carlisle, PA.
- Seminar on Industrial Relations Teaching and Research Theory and Practice. Department of Labour and Human Resource Management, People's (*Renmin*) University. Beijing, China. September 9, 2005.
- "The Introduction of Free Market Competition: My Experience as a Truck Driver and Teamster." Lecture to incoming undergraduate students at the Chinese Institute of Industrial Relations, Beijing. September 8, 2005.
- "Sweatshops on Wheels: The Labor Relations Crisis in American Trucking." Chinese Institute of Industrial Relations. Beijing. September 8, 2005.
- "Efficiency, Equity, and Voice: How Good Labor Relations Promotes Political Stability and Prosperity." School of Labour Economics, Capital University of Economics and Business. September 7, 2005; Chinese Institute of Industrial Relations. Beijing. September 5, 2005.
- "Comments on proposed Chinese labor law." Seminar on Labor Contract Law, National Committee on U.S.-China Relations. University of Michigan: Ann Arbor. July 13, 2005.
- "China Trade: The Economic Impact." China Workshop. Worcester Polytechnic Institute. Sponsored by Sloan Foundation and Sloan Industry Studies Network. Worcester, MA. June 16, 2005.
- "Efficiency, Equity, and Voice: Labor Relations, Political Stability, and Development." China Workshop. Sponsored by Sloan Foundation and Sloan Industry Studies Network. Worcester Polytechnic Institute. Worcester, MA. June 16, 2005.
- "Commercial Motor Vehicle Driver Health and Wellness: The Crystal Ball." Transportation Research Board Conference on Future Directions for Truck and Bus Safety Research, Washington, DC. March 23 and 24, 2005.
- "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Teamsters Local 728 General Membership Meeting, Atlanta, GA. February 12, 2005.
- "Trends in Global Logistics: United Parcel Service as a Freight Transportation Company." Teamsters Local 728 United Parcel Service Meeting, Atlanta, GA. February 12, 2005.
- "Sweatshops on Wheels: Trucking Deregulation and Freight." Teamsters Local 728 Freight Meeting, Atlanta, GA. February 12, 2005.
- "CMV Safety and Health: An Economic Approach." Transportation Research Board Session 458: "Health and Safety Effects of Intense Competition on Transport Workers." 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 11, 2005.
- "Revised Hours-of-Service Regulations: What Effect Have They Had on Motor Carriers and Drivers?" Transportation Research Board Session 300: Truck Drivers' Hours of Service One Year Later. 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 10, 2005.

- "The Economics of Illness and Injury: Commercial Motor Vehicle Drivers." Transportation Research Board Human Factors Workshop Session 134: Maximizing Safety, Efficiency, and Quality of Life: Linking Work and Off-Work Conditions for Transportation Workers through Application of Human Behavioral Science. 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 9, 2005.
- "Illness and Injury: The Focus on Commercial Motor Vehicle Drivers." 57<sup>th</sup> Annual Meeting of the Labor and Employment Relations Association. Collective Bargaining Section Workshop, Philadelphia, PA. January 6, 2005.
- "California Trucking Associations Safety Best Practices: A Partnership with the Trucking Industry Benchmarking Program." In Innovations in Motor Carrier Safety Management Part I: Efforts at Self-Regulation (Session 614) at the 83<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 14, 2004.
- "The Economic Impact of Adequate Border-Crossing Infrastructure." Chass Clinic. Detroit, MI. December 16, 2004.
- "Owner Operator Cost of Operations Survey." OOIDA Foundation Board. Grain Valley, MO. November 10, 2004.
- "Occupational Analysis: Logistics and Transportation." With Stanley Sedo and Peter Swan. Occupations and Workforce Needs in Targeted Industry Clusters Workshop, sponsored by the Pennsylvania Department of Labor and Industry, the Center for Workforce Information and Analysis, and the Keystone Research Center. Harrisburg, PA; October 29, 2004.
- "Illness and Injury: The Focus on Commercial Motor Vehicle Drivers." Steps to a Healthier US Workforce Symposium, Washington DC. Sponsored by the National Institute for Occupational Safety and Health. October 27, 2004
- "Current Issues in Freight." Teamsters for a Democratic Union Annual Meeting. Cleveland, OH; October 21, 2004.
- "Rail and Intermodal Issues." Teamsters for a Democratic Union Annual Meeting. Cleveland, OH; October 21, 2004.
- "Trucking Industry Benchmarking Program: Partners in Safety." International Truck Show. Anaheim, CA. September 22, 2004.
- "Trucking Industry Benchmarking Program: Partnerships in the Development of Safety Best Practices." National Policy Foundation. Taipei, Taiwan. July 6, 2004.
- "Owner Operator Cost of Operations Survey: First Results." Owner Operator Independent Drivers Association Board Meeting. Grain Valley, MO. May 13, 2004.
- "Wage Strategies, Firm Survival, and Turnover in the Trucking Industry." With co-authors Stanley A. Sedo, Julia Lane, and Kristin Sandusky. "New Evidence on Firms, Workers, and the Dynamics of Labor Markets." 56<sup>th</sup> Annual Meeting of the Industrial Relations Research Association, San Diego, CA, January 3, 2004.
- "The Effects of Work Hours and Sleep Deprivation on Truck Driver Occupational Safety and Health: A Conference Report." With Gregory M. Saltzman. 56<sup>th</sup> Annual Meeting of the Industrial Relations Research Association, San Diego, CA January 3, 2004.
- "Owner Operator Cost of Operations Survey." Owner Operator Independent Drivers Association Board Meeting. Grain Valley, MO. November 14, 2003.
- "The Jobs Tunnel: The Economic Impact of Adequate Border-Crossing Infrastructure." Urban Research Seminar. Wayne State University College of Urban, Labor, and Metropolitan Affairs. Detroit, MI. November 10, 2003.

- "Trucking Industry Benchmarking Program—California Trucking Association ISO Safety Best Practices Survey." California Trucking Association Northern California Safety Symposium. Sacramento, CA. November 7, 2003; Anaheim, CA. October 24, 2003.
- "The Jobs Tunnel: The Economic Impact of Adequate Border-Crossing Infrastructure." Booker T. Washington Business Association. Detroit, MI. November 4, 2003.
- "United Parcel Service and General Freight." Teamsters for a Democratic Union Annual Convention. Detroit, MI. October 26, 2003.
- "The Status of the General Freight Industry." Teamsters for a Democratic Union Annual Convention. Detroit, MI. October 26, 2003.
- "Global Logistics." Teamsters for a Democratic Union Annual Convention. Detroit, MI. October 25, 2003.
- "Trucking Industry Deregulation: Workforce Effects." Commission for Labor Cooperation Secretariat, focus group studying workers' compensation. Washington, DC. March 21-22, 2003.
- "Sweatshops and Safety: An Economic Analysis of Truck Driver Safety." The Pennsylvania State University, Department of Supply Chain and Information Systems, Smeal College of Business, and the Department of Labor Studies and Industrial Relations. State College, PA. February 3, 2003; Session on Perspectives on Truck and Bus Safety, Truck and Bus Safety Summit; Knoxville, TN, April 3, 2002; Michigan Section of the Institute of Transportation Engineers, Technical Section. Lansing, MI. March 21, 2002.
- "Effects of Truck Driver Wages and Working Conditions on Highway Safety: Case Study." With Daniel A. Rodriguez, Marta Rocha, and Asad J. Khattak. Session: Economic Competition and Heavy Vehicle Safety. 2003 Annual Meeting of the Transportation Research Board, Washington, DC. January 13, 2003.
- "Proposed Changes in Motor Carrier Hours of Service Regulations: An Assessment." With Gregory M. Saltzman. 55<sup>th</sup> Annual Meeting of the Industrial Relations Research Association, Washington, DC. January 5, 2003.
- "Trucking Industry Deregulation: Workforce Effects." Sloan Industry Centers Annual Meeting. Cambridge, MA: December 5, 2002.
- "Trucking Industry Deregulation: Effects on Drivers." Canadian Auto Workers Union National Conference." Toronto, December 7, 2002.
- "Trucking Industry Benchmarking Program and Proposed Owner-Operator Cost-of-Operations Survey." Presentation to Owner Operator Independent Drivers Association Board Meeting. Kansas City, MO. October 11, 2002.
- "Trucking Industry Benchmarking Program." Presentation to Advisory Board of the Trucking Industry Program and The Logistics Institute. Georgia Institute of Technology. Atlanta, GA: May 26, 2002; Board of Directors of the North American Transportation Research Association. Las Vegas, NV. March 22, 2002.
- "Trucking Industry Program." Sloan Foundation/Longitudinal Employer Household Dynamics meeting. Washington, DC. April 19, 2002; Urban Institute: Washington, DC, April 18, 2002.
- "Pay for Safety: An Economic Alternative for Truck Driver Safety." In Surface Freight Transportation Safety and Productivity: Mutual Coexistence? Transportation Research Board 81st Annual Meeting, Washington, DC. January 16, 2002.

- "Trucking Industrial Relations in the 1990s: Driving Down a Rocky Road." 54th Annual Meeting of the Industrial Relations Research Association. Atlanta, GA: January 6, 2002.
- "Hours of Service." North American Trucking Industrial Relations Association. St. Petersburg Beach, FL. November 12, 2001.
- "Pay and Safety." Presentation to Executive Board of Owner Operator Independent Drivers Association. Grain Valley, MO: November 8, 2001.
- "Safety and Productivity in Truck Transportation." Keynote address to *Manitoba Truck Safety Symposium*. University of Manitoba: Winnipeg, Manitoba, Canada. October 24, 2001.
- "Estimating the Safety Effects of Truck Driver Compensation Levels: Pay Level and Pay Method." International Industrial Relations Association 6th European Congress. Oslo, Norway June 26, 2001.
- "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Doug Fraser Center for Workplace Studies. Wayne State University, Detroit, MI: April 4, 2001; Industrial Relations Research Association of Southeast Michigan. Wayne State University, Detroit, MI: February 1, 2001.
- "Worker Representation in the Truckload Sector: What Do Truckers Want?" In Symposium: What Workers Want: Different Approaches to Employee Representation. 53<sup>rd</sup> Annual Meeting of the Industrial Relations Research Association. New Orleans, LA: January 5, 2001.
- "Proposed DOT Hours of Service Regulations." North American Trucking Industrial Relations Association. St. Petersburg Beach, FL. November 13, 2000.
- "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Department of Industrial Relations, London School of Economics, London, United Kingdom. November 30, 2000; Pembroke College, Oxford University, Oxford, United Kingdom. November 28, 2000.
- "Deregulation and Decentralization: The Impact on Employment Relations." Inaugural Graduate Colloquium of the Department of Sociology, Chung-Ang University, Seoul, Korea. October 18, 2000; *Conference of International Labor Studies in the 21<sup>st</sup> Century*, a conference in honor of the 35<sup>th</sup> Anniversary of the Department of Labour Relations and the Institute of Labour Studies, Chinese Culture University. Taipei, Taiwan, Republic of China. October 12-13, 2000.
- "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Keynote Speech to "Truck Driver Workload Public Consultation Forum." Canadians for Responsible and Safe Highways. Toronto, Ontario, Canada. September 28, 2000; Doctoral Seminar, Department of Civil Engineering, University of Texas College of Engineering. Austin, Texas, September 15, 2000; Department Seminar. Lyndon B. Johnson School of Public Policy. University of Texas. Austin, Texas, September 14, 2000.
- "Sweatshops on Wheels: De-Regulation in the U.S. Trucking Industry." Department of Industrial Relations and Organizational Behaviour, University of New South Wales. Sydney, New South Wales, Australia. July 26, 2000.
- "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Monash University. Clayton, Victoria, Australia. July 24, 2000; Seminar presented to public at the Motor Accident Authority of New South Wales, July 28, 2000; Public Seminar for *Inquiry into Causes of Truck Accidents*, Motor Accident Authority of New South Wales. Sydney, Australia, July 27, 2000; Australian Industrial Relations Society, Victoria Chapter. Melbourne, Victoria, Australia. July 24, 2000; Keynote Speaker for Women in International

Trade of Orange County. Newport Beach, California; June 16, 2000; Keynote Speaker for Foreign Trade Association of Southern California, the Harbor Transportation Club, and Steamship Association of Southern California. Long Beach, California; June 15, 2000; International Transport Workers Federation. London, United Kingdom. May 15, 2000; European Trade Union Institute. Brussels, Belgium. May 11, 2000; Deutsche Postgewerkschaft meeting developing European Works Council, Friedrich Ebert Stiftung Institute. Bonn, Germany. May 9, 2000; Wissenschaftszentrum Nordrhein-Westfalen, Institute Arbeit Und Technik. Gelsenkirchen, Germany. May 8, 2000; Wissenschaftszentrum Berlin, Organisation und Beschäftigung. Berlin, Germany. May 4, 2000.

- "Labor Issues Affecting Trucking Industry Participation in Intermodal Freight." Global Intermodal Freight: State of Readiness for the 21<sup>st</sup> Century (Transportation Research Board National Conference). Long Beach, California February 26, 2000.
- "Effect of a Wage Increase on Truck Driver Safety: Quantitative Case Study Using Individual-Level Data." With Daniel Rodriguez. In paper session "The Trucking Industry: Good Jobs and Bad Jobs, but All Hard Work". Annual Meeting of the Transportation Research Board. Washington; January 11, 2000.
- "Social Cost of Hours of Service Changes: Preliminary Estimate." With Kristen Monaco and Stephen V. Burks. In paper session "The Trucking Industry: Good Jobs and Bad Jobs, but All Hard Work". Annual Meeting of the Transportation Research Board. Washington; January 11, 2000.
- "Sweatshops on Wheels." In symposium "Wage Inequality & Labor Market Institutions." Annual Meeting of the Industrial Relations Research Association. Boston; January 7, 2000.
- "Preliminary Evidence for the Relationship between Truck Driver Pay and Safety." With Stanley Sedo. International Industrial Relations Association Study Group #9: Pay Systems. Boston; January 6, 2000.
- "Truck Driver Hours of Service Analysis." Presented to the North American Trucking Industrial Relations Association Annual Meeting. St. Petersburg Beach, Florida; November 8, 1999.
- "LTL Trucking Industry Case Study." University of Michigan Trucking Industry Program Seminar; University of Michigan, Ann Arbor, November 3, 1999.
- "Issues in Truck Driver Hours of Service Rules." Presentation to Executive Board of Owner Operator Independent Drivers Association. Grain Valley, MO; October 21, 1999.
- "The Relationship between Truck Driver Pay and Safety." Presented to U.S. Department of Transportation staff. With Stanley Sedo, in seminar at the Office of Motor Carriers in Washington DC. October 13, 1999.
- "UMTIP Research on Truck Driver Wages and Working Conditions." Presentation to Executive Board of Owner Operator Independent Drivers Association. Grain Valley, MO. April 23, 1999.
- Report of Results of Hours of Service research to Sloan Foundation Annual Industry Studies Meeting. University of Minnesota, Minnesota, Minnesota. April 10, 1999.
- "Update on Proposed Department of Transportation Hours of Service Regulatory Revisions."
   Teamsters for a Democratic Union Annual Meeting. Freight Industry Jurisdictional Meeting: Milwaukee, Wisconsin. November 8, 1998.

- Remarks to the Owner Operator Independent Drivers Association at the Dedication of New International Headquarters Building and Silver Anniversary Celebration. Grain Valley, Missouri; October 9, 1998.
- "The Impact of Trucking Deregulation on Truck Drivers: Implications for the Deregulation of the Electric Power Industry." Annual Meeting of the Indiana Electrical Association. Indianapolis, Indiana; October 3, 1997.
- "1997 Survey of Truck Drivers: A Preliminary Report." Presented to Office of Motor Carriers, U.S. Department of Transportation. With Dale Belman. Washington; April 24, 1998.
- "Transportation and Society Seminar: Integrating Transportation into the Larger Society" (Urban Planning 670, Natural Resources and Environment 760, Public Health Management & Policy 674, and Psychology 401 Section 2). February 20, 1998.
- "Labor Market Regulation: Balancing the Benefits and Costs of Competition." Annual Meeting of the Transportation Research Forum. With Dale Belman. Montreal; October 16, 1997.
- "A Methodology for Estimating the Driver Safety and Turnover Consequences of an Increase in Wage Levels." With Daniel Rodriguez and Barbara C. Richardson. Annual Meeting of the Transportation Research Forum. Montreal; October 16, 1997.
- "Consequences of Deinstitutionalizing Labor Markets." With Dale Belman. Economics Research Network, John T. Dunlop, Chair. Washington; April 17, 1997.
- "Taking Back Our Markets: Lessons from Syracuse." National Conference of the Building and Construction Trades Department, AFL-CIO. Washington. April 15, 1997.
- "Labor Market Regulation." In Roundtable Discussion of Wage Inequality, chaired by John T. Dunlop. Sloan Foundation Annual Industry Studies Meeting. Harvard University, Cambridge, Massachusetts; April 4, 1997.
- "Deconstructing Deregulation: The Effects of Deinstitutionalizing the Labor Market." Presented at the 48th Annual Meeting of the Industrial Relations Research Association. New Orleans. January 6, 1997.
- "Pay Systems in the Trucking Industry." International Industrial Relations Association Study Group #9: Pay Systems. A mini-conference of the IIRA held in conjunction with the Industrial Relations Research Association. New Orleans; January 3, 1997.
- "The Motor Carrier Industry since Deregulation." In panel entitled Regulatory Reform and Labor Markets. Southern Economic Association. Washington; November 23-25, 1996.
- "Collective Bargaining in the Trucking Industry." 38th Annual Forum of the Transportation Research Forum. San Antonio; October 17-19, 1996.
- "Taxonomy of Work Rules and Policies Effecting LTL Trucking Industry Performance: A Systems Analysis." With David Benson and Chelsea C. White III. The 38th Annual Forum of the Transportation Research Forum. San Antonio; October 17-19, 1996.
- "The Construction Industry: 19th or 21st Century Competition?" Keystone Research Center Conference *the Future of Work, Education, and Community in Pennsylvania*. Lancaster, Pennsylvania; September 7, 1996.
- "Trucking: Good Jobs or Bad Jobs?" Keystone Research Center Conference *The Future of Work, Education, and Community in Pennsylvania*. Lancaster, Pennsylvania; September 6, 1996.

- "Surveying Local Construction Markets." National Conference of the Building and Construction Trades Department, AFL-CIO. Washington; April 22, 1996.
- "Wage Effect Issues and Changes in Equality Cross-Cutting Issues." Sloan Foundation Industry Studies Annual Review Meeting. The Wharton School, University of Pennsylvania. Philadelphia; April 18-19, 1996.
- "Industrial Relations Trends in the Construction Industry, 1960s through 1990s." Economics Research Network. Washington; October 16, 1995.
- "Labor Law Reform: Lessons from the Trucking Industry." The 47th Annual Meeting of the Industrial Relations Research Association. Washington; January 8, 1995.
- "Collective Bargaining in the 1994 Round: The Emerging Role of the CEO in the Bargaining Process and the Effects on Trucking Industrial Relations." National Trucking Industrial Relations Association Annual Meeting. St. Petersburg Beach, Florida; November 9, 1994.
- "Motor Carrier Industrial Relations in Transition: An Academic Perspective." National Trucking Industrial Relations Association Annual Meeting. St. Petersburg Beach, Florida; November 10, 1993.
- "The North American Free Trade Agreement in Review: The Expected Impact on Trucking." National Trucking Industrial Relations Association Annual Meeting. St. Petersburg Beach, Florida; November 8, 1993.
- "Strategic Bargaining and Information Exchange: An American Form of Co-Determination?" Institute of Collective Bargaining. New York; September 21, 1993.
- "Industrial Relations in the Trucking Industry." *The Changing Nature of Private Sector Collective Bargaining Conference*. Detroit; February 8-10, 1993.
- "Collective Bargaining in the Trucking Industry: The Effects of Institutional and Economic Restructuring." The 45th Annual Meeting of the Industrial Relations Research Association. Anaheim, California; January 5-7, 1993.
- "Gainsharing, Profit Sharing, and Collective Bargaining." Institute of Collective Bargaining. Washington; November 10, 1992.
- "Inter-City Trucking in the U.S." Presented at international conference sponsored by the Institute of Collective Bargaining. "Regional Integration and Industrial Relations in North America." Ithaca, New York; October 1-2, 1993.

#### Other Scholarly Work

- "Less-Than-Truckload Trucking Industry Case Study and Benchmarking Report." Ann Arbor: University of Michigan Trucking Industry Program January 11, 2000.
- "Report of Results: Syracuse NY." Report of the Cornell University Construction Industry Consortium to the Building and Construction Trades Department, AFL-CIO. December 31, 1997.
- "The Trucking Industry: Structure, Work Organization, Productivity, and Labor Markets." Report to the Office of Technology Assessment, ITC Program: Technology, jobs, and productivity in the service economy. July 31, 1995.
- "Impacts of Technology and Work Organization in the Residential Construction Industry." Report to the Office of Technology Assessment, ITC Program: Technology, jobs, and productivity in the service economy. July 31, 1995.
- "Strategic Bargaining and Information Exchange: An American Version of Co-Determination?" Ithaca, New York: Institute of Collective Bargaining. 1994.

- "Gain Sharing, Profit Sharing, and Collective Bargaining in the Private Sector." Ithaca, New York: Institute of Collective Bargaining. 1994.
- "Collective Bargaining in the Trucking Industry: The Effects of Institutional and Economic Restructuring." Unpublished Ph.D. Dissertation. Cornell University, Ithaca, NY, 1993.
- "The Transformation of Labor Relations in the Trucking Industry since Deregulation." Unpublished Master's Thesis. Cornell University, Ithaca, NY, 1990.

# Discussant at Conference Paper Sessions

- "Truck Drivers, Congestion, and Carbon Footprints" (Session 359). Transportation Research Board Annual Meeting. Monday, January 12, 2009. Washington, DC.
- "Living Wage Laws: How Much Do (Can) They Matter?" by Harry J. Holzer. At "Urban and Regional Policies and Its Effects" at the Urban Institute, and cosponsored by Brookings Institution and George Washington University Institute of Public Policy and Trachtenberg School of Public Policy and Public Administration in Washington, DC. June 6, 2008.
- Refereed Papers Session. 54th Annual Meeting of the Industrial Relations Research Association. Washington, DC: January 5, 2003.
- "Labor Markets and Economics, and International Refereed Papers Symposium." 53rd Annual Meeting of the Industrial Relations Research Association. New Orleans, LA: January 7, 2001.
- "Labor Markets and Economics, and International Refereed Papers Symposium." 53rd Annual Meeting of the Industrial Relations Research Association. New Orleans, LA: January 7, 2001.
- "Strategic Diversity in Union Political Action: Implications for the 1992 Elections," by Richard W. Hurd and Jeffrey E. Sohl. Paper presented in session entitled "Strategic Evaluation of Union Political Activities." The 44th Annual Meeting of the Industrial Relations Research Association. New Orleans; January 3-5, 1992.

#### Conferences Organized and Chaired

- "Wayne State University Conference on Truck Driver Occupational Safety and Health." Detroit, MI. April 24 and 25, 2003.
- Conference on the Health Care Crisis in the United States, as a program sponsored by the Collective Bargaining Network of the Industrial Relations Research Association. January 2, 2003, in Washington DC.
- Trucking Industry Security Meeting, sponsored by the Transportation Research Board Task Force on Trucking Industry Research and University of Michigan Trucking Industry Program. National Academy of Sciences, Washington, DC, November 5, 2001.
- Workshop 196: "Economic Competition, Commercial Motor Vehicle Safety, and Driver Health". Transportation Research Board 95th Annual Meeting. Washington DC. January 10, 2016. Presenters from Australia (Tony Sheldon, General Secretary of the Transport Workers Union of Australia; Senator Glen Sterle, Australian Parliament), the United Kingdom (Sean Sayer, independent researcher), Sweden (Prof. Henrik Sternberg, Lund University), South Korea (Wol-san Liem, Korean Public Service and Transport Workers' Union), and the United States (Bruce Hamilton, General Vice President of the Amalgamated Transit Union; Prof. Peter Swan, The Pennsylvania State University Harrisburg; Randy Mullett, Vice President of XPO Logistics; Todd Spencer, Executive Vice President of the Owner Operator

Independent Drivers Association) addressing multiple problems in supply chain and safety for trucks, intercity buses, and trains.

#### Conference Sessions Chaired

- Transportation Research Board Annual Meeting Session 812: "Regulatory Liberalization and Commercial Motor Vehicle Safety: Europe and North America". Washington, DC. January 11, 2017
- Transportation Research Board Annual Meeting Session 581: "New Developments in Labor Economics: Safe Rates and Chain of Responsibility". Washington, DC. January 13, 2015.
- Transportation Research Board Committee on Trucking Industry Research (AT060). Transportation Research Board Summer Meeting. Baltimore, MD, June 17, 2008.
- "Utilizing Technology to Address congestion at U.S.—Canadian Border Crossings". Transportation Research Board Summer Meeting. Baltimore, MD, June 17, 2008.
- "Freight Economics and Public-Sector Transportation Funding: Understanding the Disconnect". Transportation Research Board Summer Meeting. Baltimore, MD, June 16, 2008.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 86<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 23, 2007.
- "Technical Committee on Trucking Industry Research." 2006 Transportation Research Board Summer Conference. La Jolla, CA, July 9-11, 2006.
- "Impact of Pricing on Congestion Management." Session 212: "Freight Systems Capacity Issues, Part 1: Impact of Pricing on Congestion Management." 85<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 23, 2006.
- Session 497: "Border Shipping Challenges: Security Versus Delay." 85<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 24, 2006.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 85<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 24, 2006.
- "Driver Health and Wellness." 2005 International Truck & Bus Safety & Security Symposium. Alexandria, VA. November 14, 2005.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 84<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 11, 2005.
- Transportation Research Board Session 418: "Changing Industries and Changing Industrial Relations in the Transport Sector." 84<sup>th</sup> Annual Meeting of the Transportation Research Board. January 11, 2005, Washington, DC.
- Transportation Research Board Session 458: "Health and Safety Effects of Intense Competition on Transport Workers." 84<sup>th</sup> Annual Meeting of the Transportation Research Board. January 11, 2005, Washington, DC.
- "Changing Industries, Industrial Relations, Occupational Safety and Health, and the Role of Work Organization and Economic Competition." 57<sup>th</sup> Annual Meeting of the Labor and Employment Relations Association. Collective Bargaining Section Workshop. January 6, 2005, Philadelphia, PA.
- Transportation Research Board Session 614: "Innovations in Motor Carrier Safety Management Part I: Efforts at Self-Regulation." 83<sup>rd</sup> Annual Meeting of the Transportation Research Board. January 14, 2004, Washington, DC.

- "Collective Bargaining and Health Care: Conflict in the Retail Food Industry." Speakers: UFCW Western Regional Vice President Bill McDonough and UFCW Research Director Howie Forman. 56th Annual Meeting of the Industrial Relations Research Association, Collective Bargaining Section. San Diego, CA, January 2, 2004.
- "Health Care Issues in the Southern California Grocery Strike of 2003-2004." Presenter: Howard Foreman, Research Director of the United Food and Commercial Workers Union. Collective Bargaining Section Meeting, 56<sup>th</sup> Annual Meeting of the Industrial Relations Research Association. January 2, 2004, San Diego, CA.
- "TRB Special Report 267, Regulation of Weights, Lengths, and Widths of Commercial Motor Vehicles, Part 3: Business and Economic Implications." 82<sup>thd</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 14, 2003.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 82<sup>tnd</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 15, 2003.
- "Truck Size and Weight: Economic Effects." 82<sup>nd</sup> Annual Meeting of the Transportation Research Board. January 14, 2003.
- "Workshop on the Health Care Crisis in the United States." 55<sup>th</sup> Annual Meeting of the Industrial Relations Research Association, Collective Bargaining Section. January 2, 2003. Washington, DC.
- "Full International Truck Operations Across the Mexican Border: Impacts on Drivers and Motor Carriers." 81<sup>st</sup> Annual Meeting of the Transportation Research Board. January 16, 2002.
- "Surface Freight Transportation Safety and Productivity: Mutual Coexistence?" 81<sup>st</sup> Annual Meeting of the Transportation Research Board, Washington, DC. January 16, 2002.
- "Mind Maps as Classroom Exercises." 54<sup>th</sup> Annual Meeting of the Industrial Relations Research Association, Collective Bargaining Section. Atlanta, GA. January 3, 2002.
- "Full International Truck Operations across the Mexican Border: Impacts on Drivers and Motor Carriers." 81st Annual Meeting of the Transportation Research Board. Washington, DC. January 16, 2002.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 81<sup>st</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 16, 2002.
- Presiding Officer and discussant. "Bargaining in Flux." 54th Annual Meeting of the Industrial Relations Research Association. Atlanta, GA: January 4, 2002.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 80<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 11, 2001.
- "Trucking Productivity, Part 2: Impact of Driver Shortages." 80th Annual Meeting of the Transportation Research Board. Washington, DC: January 10, 2001.
- "The Trucking Industry: Good Jobs and Bad Jobs, but All Hard Work." 79<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington; January 11, 2000.
- Task Force on Trucking Industry Research: Full Task Force (AT060T). 79<sup>th</sup> Annual Meeting of the Transportation Research Board. Washington, DC: January 11, 2000.
- Presiding Officer, Introduction, and Discussant: "And Lord, Let It Be Palletized: A Portrait of Truck Drivers' Work and Life from the 1997 Survey of Truck Drivers". Annual Meeting of the Transportation Research Forum. Philadelphia; October 29, 1998.
- Motor Carrier Session: Annual Meeting of the Transportation Research Forum. Philadelphia; October 29, 1998.

- "Organizing Initiatives for Industrial and Building Trades Unions." AFL-CIO/Cornell Union-University Research Conference on Union Organizing. Washington; March 31 – April 2, 1996.
- "Symposium on Workplace Redesign in the Service Sector." The 48th Annual Meeting of the Industrial Relations Research Association. San Francisco; January 7, 1996.

#### Reports submitted as deliverables for funded research

- "Main causes and consequences of lower pay and unpaid work in the trucking sector". International Labour Office of the International Labour Organisation in Geneva, Switzerland. Sound Science, Inc. June 2017.
- "International comparison of fatalities related to goods vehicles". Report produced for the International Transport Workers Federation by Sound Science, Inc. With Matthias Jung. 26 March 2015.
- "The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety." Sound Science, Inc., Ann Arbor, MI. 2012.
- "The Low Road: Fiat/Chrysler's New Auto Transport Model Threatens Highway Safety and Economic Recovery." Sound Science, Inc., Ann Arbor, MI. 2010.
- "Crisis in the North American Motorcoach Bus Industry: Threats and Opportunities Created by Growth in Intercity Bus Traffic," a report that includes three appendices providing detailed comparative analysis of safety across sub-sectors of the interstate motorcoach bus industry. 2009.
- "Report of Analysis: Truck Crashes and Work-Related Factors Associated with Drivers and Motor Carriers." 270 pages, including main report and two appendices. April 28, 2009.
- OOIDA 2003-2004 Cost of Operations Survey: Report of Results. April 2006. DOI: 10.13140/RG.2.2.17461.83682.
   <a href="https://www.researchgate.net/publication/336265370\_OOIDA\_2003-2004">https://www.researchgate.net/publication/336265370\_OOIDA\_2003-2004</a> Cost of Operations Survey Report of Results
- "Truck Driver Occupational Safety and Health: A Conference Report and Selective Literature Review" (with Gregory M. Saltzman). 893 pages, including 810 pages of presentations on CD. December 31, 2003. <a href="http://www.cdc.gov/niosh/docs/2007-120/">http://www.cdc.gov/niosh/docs/2007-120/</a>
- "The Jobs Tunnel: The Economic Impact of Adequate Border-Crossing Infrastructure" (with Philip Hopkins, Peter F. Swan, Christina Casgar, and Paul Bingham). November 19, 2003.
- "Regional and National Economic Analysis of Delay and Delay-Related Costs and the Detroit Windsor Crossings: The Economic Effects of Interruption of Capacity on the Ambassador Bridge" (with Philip Hopkins, Peter F. Swan, Christina Casgar, and Paul Bingham). September 10, 2003.
- "Paying for Safety: An Economic Analysis of the Effect of Compensation on Truck Driver Safety" (with Daniel Rodriguez and Stanley A. Sedo). 129 pages. September 2003: <a href="https://ai.fmcsa.dot.gov/CarrierResearchResults/PDFs/PayAndSafety\_Report.pdf">https://ai.fmcsa.dot.gov/CarrierResearchResults/PDFs/PayAndSafety\_Report.pdf</a>. <a href="https://www.researchgate.net/publication/242737359">https://www.researchgate.net/publication/242737359</a> Paying for Safety An Economic An alysis of the Effect of Compensation on Truck Driver Safety.

- "Proposed Changes in Motor Carrier Hours of Service Regulations: An Assessment" (with Gregory Saltzman, Stanley Sedo, George Fulton, Donald Grimes, and Lucie Schmidt). March 6, 2002.
- "Driver Background Paper: Current and Future Trends." Federal Motor Carrier Safety Administration. November 17, 2000.
- "Task 1: Baseline Risk Estimates and Carrier Experience." University of Michigan Transportation Research Institute and the Institute of Labor and Industrial Relations. 172 pages. With Kenneth L. Campbell (March 2000).
- "Less-Than-Truckload Trucking Industry Case Study and Benchmarking Report." Presented to participating carriers on January 11, 2000 at the Transportation Research Board, Washington, DC.
- "Hours of Service Impact Assessment." With Kenneth Campbell, University of Michigan Transportation Research Institute, along with research and analytic assistance from economists Stephen Burks, Kristen Monaco, George Fulton, Donald Grimes, Daniel Lass, and Dale Ballou. U.S. Department of Transportation, Federal Highway Authority, Office of Motor Carriers and Highway Safety. March 11, 1999.

#### **SERVICE**

Administrative Appointments at Wayne State, in last five years

• 2022 – present: Director of Graduate Studies, Department of Economics

Administrative Appointments at Other Colleges/Universities, in last five years

• None

University Committee Memberships, in last five years

- 2022-2023: University Promotion and Tenure Committee
- 2021-22: Wayne State University's Transportation & Mobility Task Force of the 2022-27
  Sustainability Strategic Plan Subcommittee for President Wilson's Standing Committee on
  Environmental Initiatives. This Task Force is charged with identifying goals and tactical
  strategies for achieving the goals associated with transportation & mobility for the
  University.
- CLAS Faculty Council 2014 to 2015; Fall 2017; 2018-2020.
- Economics Department, in last five years

Personnel Committee 2017-2021; 2021-2023

Salary Committee 2021-2023

**Undergraduate Committee** 

**Assessment Committee** 

Graduate Committee 2020-

Undergraduate Research coordinator

Undergraduate Director

Undergraduate Mathematical Economics Committee

Positions Held in Professional Associations, in last five years

- Labor and Employment Relations Association, Detroit Area Chapter (formerly known as the IRRA; name changed 2004); Executive Secretary (2001-2020); Executive Board (2001-present); List owner for Detroit LERA (formerly IRRA) members and friends lists (2001-2020)
- Transportation Research Board of the National Academies, in last five years
  - Member and Chairman of the Committee on Trucking Industry Research (Technical Committee AT060); April 15, 2006–April 14, 2009; April 15, 2009–April 14, 2012; April 14, 2012–April 14, 2015. Term limited. Appointed Emeritus Life Member January 1, 2015.
  - Member, Committee on Truck and Bus Safety (Technical Committee ANB70); April 14, 2003–April 14, 2006; April 15, 2006–April 14, 2009; April 15, 2009–April 14, 2012; April 14, 2012–April 14, 2015. Term limited. Now "Friend" of committee.
  - Member, Carrier Safety Management Subcommittee of the Truck and Bus Safety Committee (2014-present)
  - Member, Committee on Freight Transport Economics and Regulation (Technical Committee AT010); April 15, 2000–April 14, 2003; April 15, 2003–April 14, 2006; April 15, 2006–April 14, 2009; April 15, 2009–April 14, 2012; April 14, 2012–April 14, 2015; April 14, 2015–April 14, 2018. Term limited. Now "Friend" of committee.

#### Government Advisory Bodies

- U.S. Department of Labor, U.S. Department of Transportation. One of four invited speakers to "Listening Session" on the "Driving Good Jobs Initiative". May 3, 2022.
- National Science Foundation Workshop on Effect of Autonomous Trucks, as Human-Technology Frontier Vehicles, on the U.S. Economy. June 28-29, 2018. NSF Headquarters, Arlington, VA.
- The National Academies of Sciences, Engineering, and Medicine, Committee on National Statistics and Transportation Research Board, Expert Panel on the Review of the Compliance, Safety, Accountability Program of the Federal Motor Carrier Safety Administration. Expert panel consensus study in response to Section 5221 of the Fixing America's Transportation (FAST) Act of 2015. Period of performance May 2016 to August 2017.
- National Institute for Occupational Safety and Health / National Occupational Research Agenda Transportation, Warehouse, and Utilities Sector Council. Since 2006.
- Member, Committee for Review of the Federal Motor Carrier Safety Administration's Large Truck Crash Causation Study. Transportation Research Board of the National Research Council, National Academy of Sciences, in response to Congressional mandate to advise the Federal Motor Carrier Safety Administration; term July 1, 2000 through June 30, 2003.

#### Government Advising

- Invited by The President for a White House event marking the progress made on the Biden Trucking Action Plan on Monday, April 4, 2022. This invitation in part recognizes my contributions to the Executive Office of the President's development of this plan.
- Advising to National Economic Council, Executive Office of the President, regarding cost of cross-border blockade, especially of Ambassador Bridge. January 2022

- Advising to National Economic Council, Executive Office of the President, regarding supply chain and trucking labor market issues. Autumn 2021.
- "Driver Background Paper: Current and Future Trends." Federal Motor Carrier Safety Administration. November 17, 2000. Published on FMCSA intranet.

### Other Organizations and Public Service

- Since early 2011, President of Great Lakes Gateway, a Michigan Not-for-Profit Corporation [2011-2013, IRS 501(c)(3)]. This corporation created the Great Lakes Global Freight Gateway, presented an Action Plan to Michigan Economic Development Corporation, and organized a public business and government meeting on October 11, 2011 composed of all the appropriate Michigan government officials as well as more than two dozen beneficial cargo owners interested in this economic redevelopment activity. We raised the funds for this meeting from our two service provider partners, the CN Railway and Halifax Port Authority. The GLG plan is to transform southeast Michigan into an inland port by building an intermodal freight hub, becoming a freight gateway for the Midwest.
- Consultation with Detroit, Wayne County, and Michigan economic development officials to help them develop an economic development plan. This has included presentations to Detroit Charter Revision Commission, Wayne County Economic Development and Growth Engine (EDGE), Detroit Economic Growth Corporation (DEGC), Detroit Works, and many others.
- Member, Advisory Board of TranslinkeD, Detroit Regional Chamber, 2009-2010.
- Member, Steering Committee for the National Safety Council 2005 International Truck and Bus Safety Symposium. 2004-2005.
- Member, Advisory Board of the Owner Operator Independent Drivers Association Foundation. 1999–2006.
- Member, Research Advisory Committee of the American Transportation Research Institute (American Trucking Associations); 2001–2004.
- Member, Board of Directors of the North American Transportation Employee Relations Association; 2001–2012.
- Member, founding committee for <u>Voice@Work</u>, a project bringing together academic researchers and the AFL-CIO; 2001.

#### **Professional Consultation**

• Extensive professional consulting with firms, agencies, labor organizations, and lawyers regarding issues with which my expertise is requested, including expert witness testimony on cases involving truck drivers, trucking labor markets, truck driver safety and health, trucking industry safety, contracting and subcontracting, as well as compensation (including issues involving the Fair Labor Standards Act).

#### **Testimony before Public Bodies**

"Economic Incentives and Market Pressure: Why Markets Require 'Safe Rates'
Regulation." Senate Rural and Regional Affairs and Transport References Committee,
Senate Standing Committee on Rural and Regional Affairs and Transport, Parliament of
Australia. April 28, 2021.
<a href="https://parlview.aph.gov.au/mediaPlayer.php?videoID=540464&operation\_mode=parlview">https://parlview.aph.gov.au/mediaPlayer.php?videoID=540464&operation\_mode=parlview</a>

- "Evaluating the PwC "Review of the Road Safety Remuneration System"," Detroit: Wayne State University, 10. Written testimony for Australian Parliament. April 15, 2016. <a href="https://www.researchgate.net/publication/335192796\_Evaluating\_the\_PwC\_Review\_of\_t">https://www.researchgate.net/publication/335192796\_Evaluating\_the\_PwC\_Review\_of\_t</a> he Road Safety Remuneration System
- International Labour Organization Tripartite Sectoral Meeting on Safety and Health in the Road Transport Sector (Geneva, 15 October 2015). Expert advisor to Workers' Group; Intervenor.
- Road Safety Remuneration Tribunal (Rt02013/1). In the Matter of Transport Workers' Union of Australia, Applicant. Statement of Dr. Michael H. Belzer. July 30, 2013.
- Testimony to U.S. Congress, House of Representatives, Committee on Small Business.
   "Possible Flaws in the Federal Trucking Safety Program" or "Is FMCSA's CSA Program Driving Small Businesses Off the Road?" July 11, 2012.
   <a href="https://www.researchgate.net/publication/356567842">https://www.researchgate.net/publication/356567842</a> DR MICHAEL BELZER'S Testimony to US Congress House of Representatives Committee on Small Business Possible Flaws in the Federal Trucking Safety Program or Is FMCSA's CSA Program Driving Small Business
- Submission of evidence and expert opinion to the Standing Committee on Infrastructure and Communications with Regard to the Inquiry into the Road Safety Remuneration Bill 2011 and the Road Safety (Consequential Amendments and Related Provisions) Bill 2011. 29 January 2012. Submitted to House Standing Committee on Infrastructure and Communications, House Standing Committee on Climate Change, Environment and the Arts, Parliament House Canberra ACT 2600.
- "The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety." Testimony to Safe Rates Summit, Parliament House, Canberra, Australia. November 21, 2011.
- "An Economist's Perspective on Sustainability and Community Benefits." Testimony to Michigan Senate Economic Development Committee. Lansing, MI, September 28, 2011.
- Provide evidence in support of Application by the Transport Workers' Union of New South Wales for a new *Transport Industry—Mutual Responsibility for Road Safety (State) Award and Contract Determination*. Report entitled "Compensation and Safety: Economic Support for Truck Driver Safety" submitted October 20, 2005 and admitted into evidence April 7, 2006, before the full bench of the Industrial Relations Commission of New South Wales, in Sydney, New South Wales, Australia, on March 7, 2006.
- Testimony presented to Michigan House Commerce Committee regarding the "Jobs Tunnel" of the Detroit River Tunnel Partnership. Lansing, MI. March 30, 2004.
- Testimony to Michigan Senate Commerce and Labor Committee regarding "Jobs Tunnel" Detroit River Tunnel Partnership. Lansing, MI. January 20, 2004.
- Testimony to Detroit City Council regarding Detroit Intermodal Freight Terminal. November 1, 2001.

• "Sweatshops on Wheels: Winners and Losers in Trucking Deregulation." Evidence provided to Inquiry into Causes of Truck Accidents, Motor Accident Authority of New South Wales. Sydney, Australia, July 27, 2000.

Consulting and Advising to Public Agencies, Foundations, Professional Associations

- 2022 advising to the U.S. Department of Labor and U.S. Department of Transportation regarding how to restore truck driving jobs to their condition before economic deregulation.
- 2021 advising to the Executive Office of the President, National Economic Council and National Policy Council, regarding labor market problems associated with supply chain failures, and particularly on the issue of truck driver recruitment and retention.
- 2021 advising to Office of the Inspector General of the U.S. Postal Service on the issue of truck driver recruitment and retention.
- 2018 advising to Office of the Inspector General of the U.S. Department of Transportation on the issue of truck detention time.
- 2017 "Main causes and consequences of lower pay and unpaid work in the trucking sector." International Labour Office, Geneva, Switzerland.
- 2012 Statement in support of Safe Rates legislation.
- National Institute of Occupational Safety and Health truck driver survey (2009-2010) contract to Sound Science, Inc.
- "The Low Road: Fiat/Chrysler's New Auto Transport Model Threatens Highway Safety and Economic Recovery". January 16, 2010. Consulting contract of Sound Science, Inc. with International Brotherhood of Teamsters.
- "Industrial Relations Effects on Large Truck Crash Causation." Consulting contract of Sound Science, Inc. with Chenega Advanced Solutions and Engineering, LLC (CASE), under contract to the U.S. Department of Transportation Volpe National Transportation Systems Center for the Federal Motor Carrier Safety Administration. November 2007 through April 2009.
- "Port Driver Employment: The Weak Link in the Freight Security Chain." A report submitted to the International Brotherhood of Teamsters. August 16, 2006. Consulting contract of Sound Science, Inc. with International Brotherhood of Teamsters.
- Research design concept for possible truck driver survey, for the U.S. Department of Transportation Federal Motor Carrier Safety Administration. Consulting contract of Sound Science, Inc. with ICF Consulting. Submitted February 7, 2006. Consultation funded through Sound Science, Inc. as principle investigator.
- Research analysis on truck driver hours-of-service. Consulting contract of Sound Science, Inc. with ICF Consulting in support of Federal Motor Carrier Safety Administration's 2005 regulatory evaluation. With subcontractors Stephen V. Burks and Stanley A. Sedo.
- Research on Occupations, Labor Supply and Demand, and Human Resource Challenges
  the Transportation and Logistics Industry Cluster in Pennsylvania. Consulting contract of
  Sound Science, Inc. with Keystone Research Center. October 2004 through April 2005.
  With subcontractors Stanley A. Sedo and Peter F. Swan. Work performed for the
  Pennsylvania Department of Labor to assist their Local Workforce Investment Boards.

- "Work Organization Influence on Fatigue in Truck Drivers." Consulting contract of Sound Science, Inc. with National Institute for Occupational Safety and Health. September 1, 2004 through September 1, 2009.
- Briefing to staff of the U.S. Senate Committee on Commerce, Science, and Transportation, Subcommittee on Surface Transportation & Merchant Marine. Senate Dirksen Building. June 15, 2004.
- Presentations on trucking industry benchmarking to North American Transportation
   Employee Relations Association (2001, 2002; trucking general best practices), National
   Association of Motor Carrier Auditors (2003; trucking general best practices), California
   Trucking Association (2003; trucking safety best practices), Moving and Storage
   Association of North America (2003; trucking general best practices), Las Vegas
   International Truck Show (2003; trucking safety best practices), Owner Operator
   Independent Drivers Association (1997-2003; trucking general best practices, safety best
   practices, and cost-of-operations).
- Irregular *pro bono* consultation to U.S. Department of Transportation, Federal Motor Carrier Safety Administration, 1998-2002. Regular consultation to consulting firm preparing reports to FMCSA, 2004-2012.
- Irregular *pro bono* consultation to National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Department of Health and Human Services. 2003-present.
- *Pro bono* consultation to Southwest Detroit Business Association and Communities for a Better Rail Alternative from 2001 2003 on issues involving the Detroit Intermodal Freight Terminal and the impact on the community.
- *Pro bono* consultation to Secretariat, Commission for Labor Cooperation, on issues involving workers' compensation systems across NAFTA borders. March 21-22, 2003.
- Presentations on Southwest Detroit transportation infrastructure issues to the Detroit Orientation Institute, April 2002 and April 2003.

## Consulting to Private Enterprises

- International Brotherhood of Teamsters. Analysis of the Federal Motor Carrier Safety Administration's Regulatory Impact Analysis for the Interim Final Rule on Truck Driver Hours of Service. Report. February March 2008.
- Detroit River Tunnel Partnership. Preparation of analysis and reports on border-crossing infrastructure capacity issues; Report published 2003.
- Science Applications International Corporation (SAIC). Consultant on "Driver Violation Notification Service Feasibility Study," a study conducted by SAIC for the U.S.
   Department of Transportation Federal Motor Carrier Safety Administration, May 2003 – May 2004.
- Consultant and expert witness in truck crash, industrial relations, compensation, discrimination, subcontracting (including "truth-in-leasing"), employee misclassification, bankruptcy, commercial arbitration, and other industry-related legal cases. Clients have included National Labor Relations Board, American Civil Liberties Union, unions and union federations nationally and internationally, transportation companies and transportation industry associations, and attorneys representing clients in various disputes. Cases mainly in Federal Court.

# Reviewer for Scholarly, Government, and Professional Organizations

- Transportation Research Board's *Research to Improve Estimates of Impacts of Changes in Truck Size and Weight Regulations* report as authored by the Truck Size and Weight Limits Research Plan Committee (National Academies of Sciences, Engineering, and Medicine). TRB Special Report 328. 2019
- Confidential report reviewer for a National Academies of Science, Engineering, and Medicine's joint Committee on National Statistics, Board on Human-Systems Integration, and Transportation Research Board report on Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health. December 2015.
- Mountain-Plains Consortium, a regional university transportation center in federal region 8 which encompasses the states of Colorado, North Dakota, Montana, South Dakota, Utah, and Wyoming, 2014
- "Economic Impacts of the Category 3 Marine Rule on Great Lakes Shipping National Science Foundation", U.S. Environmental Protection Agency, Office of Transportation and Air Quality. 2011.
- National Institute for Occupational Safety and Health
- Economic and Social Research Council (UK)
- WorkSafeBC (British Columbia)

#### Journal/Editorial Activity

- Associate Editor of the Transportation Research Record: Journal of the Transportation Research Board of the National Academies. 2021 – present <a href="https://journals.sagepub.com/home/trr">https://journals.sagepub.com/home/trr</a>
- Transportation Research Board Committees AT060 (former editor), AT010, ANB70, and other committees for presentation at Annual Meetings of the Transportation Research Board, publications in the Proceedings of Annual Meetings of the Transportation Research Board, and publication in the Transportation Research Record.

# Peer review for these additional selected scholarly journals

- Industrial Health
- o Cambridge Journal of Regions, Economy and Society
- Oxford Economic Papers
- o Urban, Planning and Transport Research
- o International Journal of Workplace Health Management
- o Journal of Public Health Policy
- o Industrial and Labour Relations Review
- Industrial Relations
- Journal of Industrial Relations
- Transportation Journal
- o Economic and Labour Relations Review
- New Solutions
- Journal of Applied Economics
- o Review of Industrial Organization

- o Transportation Research: Part E, Logistics and Transportation Review
- o Labor Studies Journal
- o Journal of Workplace Rights
- o Journal of the Transportation Research Forum
- o Journal of Facilities Management
- o Business & Society
- o Industrial Relations Research Association Annual Meeting competitive papers
- Southern Economic Journal
- o European Journal of Transport and Infrastructure Research
- o Research in Transportation Business & Management
- o Accident Analysis and Prevention
- o Travel Behaviour and Society
- o Safety and Health at Work
- o Safety Science
- o Journal of Safety Research
- o Transport Policy
- o SLEEP
- o Journal of Clinical Sleep Medicine

ILR Press/Cornell University Press

University of Pittsburgh Press

National Science Foundation

National Institute for Occupational Safety and Health

Economic and Social Research Council (UK)

# **Appendix**

Google Scholar Citations as of February 2023

Cited by		VIEW ALL
	All	Since 2018
Citations	1697	566
h-index	22	14
i10-index	32	19

