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Viewpoint

Does truck driver health and wellness deserve more attention?

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ABSTRACT

Numerous external costs of logistics exist that can have an indirect impact on business or society. This paper outlines the external cost of truck driver health and how it may have a negative impact on supply chains. As key contributors to logistics and transportation, truck drivers have a substantial impact on the global economy. However, the high demands of their jobs can often lead them to overlook their health and well-being, which can negatively impact drivers, their firms, and supply chains. This is a critical issue that has largely been overlooked in the logistics and transportation literature. The purpose of this paper is to identify the issue and some of its key components in order to induce awareness in the logistics community. It also seeks to motivate future research that may help to alleviate the problems that may arise as a result of unhealthy truck drivers. With a shortage of drivers and a looming capacity crisis already being experienced in many key global economic areas, it is imperative that the drivers that are currently available are able to serve to the best of their abilities.

1. Introduction

The global economy is reliant upon supply chain networks to operate efficiently in order to prosper. While there are direct costs firms face while participating in these activities, there are also external costs that can have a notable impact. There is much coverage of numerous external costs in the logistics literature, but a cost that needs additional investigation is the health and wellness of truck drivers. The medical literature includes a significant amount of research on this topic. For example, some studies have looked at health needs and improving health awareness and education among truck drivers (Angeles et al., 2014; Hassan et al., 2014; Ng et al., 2015), while others have considered obesity (Martin et al., 2009; Kay and McLaughlin, 2014; Sieber et al., 2014) or fatigue (Adams-Guppy and Guppy, 2003; Dawson et al., 2014). However, this is a topic that has been widely overlooked in business or logistics publications. These fields should give serious consideration to this issue since trucking is a key cog in the global economy.

A lack of attention to the well-being of truck drivers may contribute to inefficient or ineffective supply chains since this group is a key participant in this function. It may also worsen the truck driver shortage currently being experienced since the perceived negative effects of the work on their lives discourage potential commercial vehicle operators. Truck driver health and wellness is an important problem because due to issues like long working hours and the potential of traffic accidents, the United States Department of Labor Occupational Outlook Handbook notes that truck drivers have one of the highest rates of illness and injury of any occupation (Heavy and Tractor-trailer Truck Drivers, 2014). There are also notable financial impacts related to the problems truck drivers may experience. For example, as mentioned in the coming paragraphs, annual costs related to commercial motor vehicle crashes in the United States are approaching $100 billion.

Although research in this area is lacking, policymakers around the world have not unequivocally ignored it. Efforts have been made in various countries to limit the hours a driver can operate a vehicle. The United States has recently updated its hours of service (HOS) regulations, while countries in the European Union have drivers' hours rules that impose similar limitations. For example, in the United States the Federal Motor Carrier Administration has determined that drivers can operate a vehicle no more than 60 h within 7 days or 70 h within 8 days, and mandatory rest breaks are also included (Heavy and Tractor-trailer Truck Drivers, 2014). These types of statutes that establish daily and weekly limits are created in order to create a safer environment for both drivers and those operating other vehicles. Despite these efforts, the American Transportation Research Institute (2015) has ranked HOS rules at the top of its critical trucking

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industry issues list (2015). Key issues still outstanding relate to a loss of productivity and reduced driver pay related to these HOS limitations. Thus, it seems that the balance between safety and economic issues has not yet been achieved.

2. Issues impacting truck drivers

2.1. Health problems

Truck drivers work in an environment that requires long periods of relative immobility in the driver seat of a vehicle. This can contribute to an inactive lifestyle that may ultimately lead to poor health. This is especially true when coupled with a bad diet, which many truck drivers face due to the speed and convenience of unhealthy foods. In addition, Sieber et al. (2014) found that over half of truck drivers smoke, and many of workers in the transportation, warehousing, and utilities (TWU) super sector, which includes truck drivers, do not participate in physical activity (Helmkamp et al., 2013). The combination of these adverse health factors can result in serious problems, such as obesity, high blood pressure, and sleep apnea, which can all contribute to death. Truck drivers also experience the potential for high levels of stress and fatigue from their working environment, such as traffic congestion or spending extended periods away from home.

An example of a previous consideration of driver health is a study by Helmkamp et al. (2013) that looks beyond just truck drivers. In their study, they looked at health and risk factors of members of the TWU super sector in the United States. They used data from the National Health Interview Survey (NHIS) for 1997–2007, which was conducted by the National Center for Health Statistics (NCHS) (Lee et al., 2012). Findings from this study indicate that workers in the sector, which includes truck drivers, have a worse health status than the average worker above 18 years of age. An associated problem that was identified by Solomon et al. (2004) is that long-haul drivers often do not have a regular healthcare provider or experience difficulty with accessing healthcare services. Thus, these individuals not only have a below average health status, but they also seem less likely to seek out help in order to improve their well-being. This is reinforced by Sieber et al. (2014), who note that over one third of truck drivers are not covered by a health insurance plan.

Table 1 outlines key findings from a health and injury survey on long-haul truck drivers (Sieber et al., 2014), and it provides compelling evidence to support the premise that truck drivers are less healthy than the average person. For example, obesity levels for the group are at a prevalence rate of 68.9%, which is well above the average level of 22.8% for the entire U.S. worker population. Hypertension was also a particularly noteworthy problem for truck drivers, with over 1 out of every 4 workers experiencing the problem, and the percentage of truck drivers with diabetes is over three times the U.S. national average. Further evidence comes from Helmkamp et al. (2013) study, which includes the entire TWU super sector. Workers in the super sector also lost more work days per year than the average of the overall population, which trailed only the mining sector. In addition, the TWU super sector had the highest prevalence of workers that lost 6 or more work days in a year. Although the findings of these studies are limited to a single country, they do provide support for the need to further explore the issue of truck driver health.

In addition to the previously noted studies, other medical research has indicated that the body mass index of over half of all truck drivers is above the threshold of obesity (Wiegand et al., 2009), and this prevalence is three times as high as that of the average working adult in the United States (Sieber et al., 2014). Drivers that are overweight or obese also have higher healthcare costs, as discussed by Martin et al. (2009). They note that while a driver of a normal weight typically has healthcare expenses of $1012 per year, overweight and obese drivers see those costs rise to $1613 and $1792. In addition to monetary costs, obese drivers put the well-being of themselves and those around them at risk by having a higher crash risk (Anderson et al., 2012) and a likelihood to fatigue more quickly (Wiegand et al., 2009). Thus, the link between obesity and fatigue implies that unhealthy drivers may be putting both themselves and others at risk by an increased likelihood of an accident.

Health problems are only exacerbated for truck drivers by the sedentary time spent operating a vehicle for prolonged periods. As Owen et al. (2011) note, “too much sitting” can be a health risk. This is evidenced by the numerous studies that have outlined the negative impacts of sedentary behaviors (Frank et al., 2004; Warren et al., 2010; Hoehner et al., 2012; Sugiyama et al., 2013). What puts this problem into an even more disturbing perspective is that these often focus on commuting to work rather than more prolonged periods spent in a vehicle by truck drivers. Thus, it seems that these studies may even be a best-case scenario for truck drivers since they often live in their vehicles and “opportunities to break up sitting time may be limited by environmental attributes” (Owen et al., 2011). In other words, the economic demands of getting a load delivered on time may prevent truck drivers from having the opportunity to take a break from driving. To make matters even worse, it has been posited that even those adults that do meet physical activity guidelines may have compromised metabolic health from sitting too much (Owen et al., 2010), so truck driver health may be hindered from the start simply by choosing the career.

It is also important to consider mental health problems that may arise from the psychologically demanding nature of the work truck drivers are involved in, such as time pressures, isolation from family and friends, driving hazards, and violence (Shattell et al., 2010). Symptoms of mental health issues like anxiety or depression have been found to impair work performance (Haslam et al., 2005), and truck

Table 1
A comparison of truck driver health vs. the average U.S. worker.
U.S. Worker Population.
Source: National Institute for Occupational Safety and Health (2012), ⟨http://www.cdc.gov/niosh/docs/2012-159/pdfs/2012-159.pdf⟩. Truck Driver Sample Source: Sieber et al. (2014).

	U.S. worker population	Truck driver sample
Hypertension (%)	17.7	26.3
Diabetes (%)	3.9	14.4
Current smoker (%)	23.8	50.7
Obesity (%)	22.8	68.9

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