

**TESTIMONY OF JESSE DAVID, PH.D.
ON THE 2010-2011 HOURS OF SERVICE RULE**

NOVEMBER 30, 2011

Mr. Chairman and Members of the Subcommittee:

I am an economist and a Senior Vice President at Edgeworth Economics, a consulting firm based here in D.C. I have a Ph.D. in economics, with specialization in public finance and environmental economics, and 15 years of experience as a practitioner in the area of regulatory policy evaluation.

I was retained by the American Trucking Associations to analyze the cost-benefit calculations in the RIA issued by FMCSA last December for this proposed rule.¹ My analysis focuses on whether the agency's methods were accurate and consistent with current data and the precepts of economics, and compares FMCSA's approach to RIAs issued for prior HOS proposals.

I will first summarize FMCSA's results on the cost-benefit question. For Option 2, which would restrict driving time to 10 hours per day from the current limit of 11 hours, FMCSA estimates costs to the industry of \$990 million per year due to lost productivity. The agency also includes compliance costs of \$40 million per year. FMCSA estimates benefits in two areas: reduced crash frequency (\$720 million per year), and improved driver health due to increased sleep (\$690 million per year). In total, FMCSA calculates net benefits of \$380 million per year for Option 2. (See Exhibit 1.)

In my report, which I understand has been entered into the record here, I identify several problems with FMCSA's assumptions and calculations. The agency has made a number of substantial changes to its approach since the previous RIA issued in 2007. I find that, in every instance, the new methodologies increase the apparent net benefits of the proposed rule. However, many of these new approaches rely on misapplication of available data, use of outdated information, or lack empirical support entirely. I will describe three of the most significant issues here.

¹ Edgeworth Economics, "Review of FMCSA'S Regulatory Impact Analysis for the 2010-2011 Hours of Service Rule," prepared for the American Trucking Associations, February 15, 2011. Complete references for all statements in this testimony are included in the Edgeworth report.

First, FMCSA bases its calculations on an outdated figure for the frequency of large-truck crashes. Since the benefits of the proposed rule relate to reducing crash frequency, the current rate of crashes is a key input to the analysis. FMCSA uses a figure of 434,000 crashes per year, which is approximately the rate of crashes 10 years ago, before the current HOS rule was implemented. (See Exhibit 2.) Large-truck crashes have declined steadily, falling to 286,000 in 2009—34 percent lower than FMCSA's figure. This assumption alone inflates the benefits of the proposed rule by about \$250 million per year.

A second issue relates to FMCSA's calculation of the fraction of crashes that are caused by driver fatigue. Only these types of crashes could be affected by the proposed rule, so again this is a critical assumption.

In its 2007 RIA, FMCSA concluded that driver fatigue was a factor in about 7 percent of all crashes. FMCSA now uses a new method and a different source of data (the Large Truck Crash Causation Study or "LTCCS") and calculates a much larger fraction of crashes associated with driver fatigue—13 percent, almost twice as high as the agency's previous conclusion. However, the agency's new method is unsound. FMCSA inappropriately assumes that each "associated factor" identified in the LTCCS for a particular crash was the "cause" of the crash, even when multiple factors were present. For example, suppose investigators identified three "associated factors" for a particular crash: prescription drug use by the driver, speeding, and fatigue. The agency assumes that eliminating driver fatigue would have caused that crash to be avoided. This new method contradicts FMCSA's own conclusions in the LTCCS report, when it acknowledged that each "associated factor" could not be considered to represent an independent cause of a crash.

I calculate that increasing the assumed fraction of crashes caused by fatigue from the 7 percent figure used in the previous RIA to the unsupportable 13 percent figure inflates the net benefits of the proposed rule by about \$330 million per year.

A third problem with FMCSA's methods relates to assumptions about the benefits of increased sleep time for driver health. In previous RIAs, FMCSA had concluded that existing HOS rules did not have any adverse impact on driver health. In the new RIA, however, FMCSA calculates substantial benefits based on the assumption that very small increases in sleep time within the normal daily range of 6 to 8 hours will result in improved health.

A significant problem with FMCSA's new approach relates to the agency's application of results from a study by Ferrie, et al. on the mortality rates associated with varying levels of sleep. Ferrie calculated mortality rates for a cohort of British civil servants in the 1980s who had reported daily sleep levels in the categories of "5 hours or less," 6, 7, 8, and "9 hours or more." While Ferrie did find increased mortality associated with the lowest and highest responses, the researchers found no statistically significant differences between the mortality rates of people who reported between 6 and 8 hours of sleep.

Other academic research has confirmed these conclusions. For example, Cappuccio, et al. concluded: "Currently, there is no evidence that sleeping habitually between 6 and 8h per day in an adult is associated with harm and long term health consequences." FMCSA cites the Cappuccio study in the RIA, but ignores this key finding. I understand that Professor Cappuccio has submitted a report into this docket stating that the agency misinterpreted and misused his research to support its conclusions.

FMCSA's unsupported assumptions about reduced driver mortality inflate the net benefits of the proposed rule by \$690 million annually.

These three issues are the most significant ones that I found with the RIA, in cost-benefit terms, but there are numerous additional unsupported assertions and methodological errors which further inflate the apparent benefits of the proposed rule. When I correct for these issues, I find that the new rule would result in a net *cost* of \$320 million annually, rather than a net *benefit* of \$380 million annually, as calculated by FMCSA.

Thank you for your time. I encourage you to read my report for additional detail on the issues I have discussed here.

Exhibit 1
Annualized Costs and Benefits for HOS Option 2
FMCSA Assumptions vs. Edgeworth Adjustments
(million 2008\$)

	<i>Costs</i>		<i>Benefits</i>			<i>Net Benefits</i>
	<i>Lost Productivity</i>	<i>Compliance</i>	<i>Safety - Reduced Driving Time</i>	<i>Safety - Reduced Work Time</i>	<i>Improved Driver Health</i>	
FMCSA	\$990	\$40	\$180	\$540	\$690	\$380
Edgeworth	\$360	\$40	\$30	\$50	\$0	-\$320

Exhibit 2
Large Truck Crashes, 2000-2010

