

# Measuring the Cost of Aggressive Drivers

While most managers realize unsafe driving behaviors lead to accidents, and also to lost productivity, repair costs and higher insurance rates associated with accidents, many management teams fail to factor the cost of aggressive driving in terms of higher fuel, tire and maintenance costs. Underestimating the impact of these increased costs can devastate profits.

Aggressive drivers push their vehicles hard. Typically, they:

- accelerate hard, adding stress to the engine and transmission, and wasting fuel;
- speed, driving up fuel consumption and increasing tire wear from tire heating;
- tailgate, which leads to a greater frequency of heavy brake applications and wears out brake system parts and tires more quickly.

This behavior by aggressive drivers costs companies a significant amount more than drivers who follow the speed limit, maintain proper distance between vehicles and slow down more gradually.

## Studies

A few studies have focused on fuel economy, tire wear and resale value of vehicles that have been driven “hard” by their operators. One study looked specifically at aggressive driving and its effect on maintenance costs. Some of these studies are summarized here.

A supplier in the redimix concrete industry developed a program of early detection of unsafe driving habits. Why? Inherent in the industry are driver safety and truck rollover issues, which have a critical impact on equipment operating costs and profits.

The study looked at the accelerations exerted on the truck during various driving maneuvers (e.g., turns, starts, stops), and compared these measurements to the average for the study group fleet or to the industry as a whole. Scores were calculated for several categories of maneuvers, and the individual scores plus a composite score was reported.

The findings? The sheer weight of the loaded truck, if not handled properly, creates tremendous stress on all operating components and prematurely ages a truck. Maintenance costs and reduced truck life span are significant costs to

consider. Higher fuel, tire and maintenance costs were also cited as primary opportunities to recapture lost profits.

Ryder district manager Dan Lessnau had profit and loss responsibility and felt that the company’s “biggest expense area was maintenance costs. Therefore, we spent a lot of time examining how we could reduce the operational expenses of a vehicle.” Since his location leased predominately heavy class 6, 7 and 8 vehicles, most of the analysis was directed to those types.

For example, on a tractor with a 350 Cummins engine, for every 5 miles of speed over 55 mph, a driver burns an extra gallon of fuel per hour. This equates to 8 to 10 gallons a day; at today’s fuel cost (\$2.50 per gallon), that would equal \$20 to \$25 per day. At \$20 per day for 245 days of operation per year, the company would spend \$4,900 per year in fuel costs alone.

Speed also reduces engine life. There is a correlation between the number of pounds of fuel put through an engine and overall engine life.

In addition, speed and hard braking (tailgating) affect tire and brake wear. Again, on a large-bore diesel tractor a vehicle operated safely will get about 200,000 miles on a set of tires located on drive axles. However, excessive speed generates additional heat, which reduces tire life.

Studies have shown that unsafe drivers get only about 165,000 miles on a set of tires located on drive axles. This is about 17.5% less tread life. At that time, a new drive tire cost about \$300; therefore, an unsafe driver cost an additional \$52.50/tire from reduced tread life. Using the example of a tandem tractor with 8 drive tires, an unsafe driver would cost \$52.50 x 8 = \$420 in excessive tire cost every 165,000 miles.

Moreover, drivers who exhibit excessive speed also have harder braking (because of tailgating), which has affects not only tire wear but also brake wear. The same principles outlined for measuring the cost of tire wear held true for brake wear—about a 20% decrease in their life cycle.

Also, fleets that permit aggressive drivers to wear out their vehicles need to

maintain a greater number of “spares”—spare vehicles to use while the main vehicle is out for repairs and maintenance. Spares waste capital on a truck that might otherwise be productive. The ratio of spares is highest among fleets with aggressive scheduling. These hectic operations give the appearance of high productivity, but often at very low efficiency and high hidden costs such as brake, tire and fuel costs.

The U.S. government has created a website—[www.fueleconomy.gov](http://www.fueleconomy.gov)—to educate the public of the waste of fuel from improper driving. Here are some statements from the site:

- You can improve gas mileage by around 3.3% by keeping your tires inflated to the proper pressure. Under-inflated tires can lower gas mileage by 0.4% for every 1 psi drop in pressure of all four tires. Properly inflated tires are safer and last longer.

- Aggressive driving (speeding, rapid acceleration and braking) wastes gas. It can lower your gas mileage by 33% at highway speeds and by 5% around town. Sensible driving is also safer for you and others, so you may save more than gas money.

- Gas mileage decreases rapidly at speeds above 60 mph. Each 5 mph you drive over 60 mph is like paying an additional \$0.10 per gallon for gas. Observing the speed limit is also safer.

California Energy Commission lists the following information at its website:

- All vehicles lose fuel economy at speeds above 65 mph. Driving 65 instead of 75 mph reduces fuel cost 13%.

- Some overlooked maintenance items, such as a dirty air filter and under-inflated tires, can increase fuel cost up to 13%.

## Tying Costs to Specific Drivers

Over time, fuel, tire and maintenance costs become very significant. Some fleets may be tempted to look at these costs as “uncontrollable” or simply part of “the cost of doing business.” Why is that? It can be difficult to track these costs back to specific drivers since many fleets do not assign particular vehicles to specific drivers.

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## Pandemic vs. Preparedness

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a threat that turned out to be a nonevent. Pandemics do approach with many uncertainties or unknowns. However, waiting to prepare while waiting for facts will be too late. Once confirmed, an organization will be hard-pressed to catch up to the speed in which the risks and fear of a pandemic will start occurring. We have all received the equivalent of football's 2-minute warning. The question is—what will you do with it? ■

## References

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*Scott A. Mugno, J.D., is the managing director of corporate safety, health and fire prevention at FedEx Express in Memphis, TN. He is a member of ASSE's Transportation Specialty Practice.*

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## Measuring the Cost of Aggressive Drivers

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One way to address the issue is through driver monitoring. For example, one way to find aggressive drivers in your fleet is to use a safety hotline program (e.g., 800 number posted on trucks). Providers of hotline systems help you to spot tailgating, excessive speeding and weaving in traffic, and push reports directly to the supervisor as it happens. Companies offering effective safety hotline programs provide reports that focus on specific behaviors, offer training materials to help coach the driver, and give managers the clues to discover how

aggressive drivers are pushing up maintenance costs within their operation.

If you look at the maintenance records for vehicles that are normally operated by the drivers highlighted in monitoring programs, you will see higher than average maintenance costs. Additionally, fuel costs for these drivers will typically be much higher than the average when auditing credit card or fuel card bills. ■

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*Paul Farrell is CEO of SafetyFirst Systems, LLC, River Edge, NJ. He can be reached at [paulf@safeteefirst.com](mailto:paulf@safeteefirst.com)*

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## Practice Specialty Officers Elected by Acclamation

The Nominating Committee of the Transportation Practice Specialty nominated Douglas R. Cook as Administrator and Frank D'Ambrosio, CSP, as Assistant Administrator.

As required by the Society Operations Guide, the Nominating Committee's decision was submitted to and approved by the current Transportation Practice Specialty administrator and assistant administrator, and the Society Nominating and Elections Committee. No other Transportation Practice Specialty member submitted a written petition for nomination by Feb. 15, 2006, therefore, the slate stands as submitted.

In accordance with Society Operations Guide 11.2, since the nominees were unopposed, Doug Cook and Frank D'Ambrosio are hereby declared elected by acclamation. Join us in congratulating these two officers of the Transportation Practice Specialty.

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