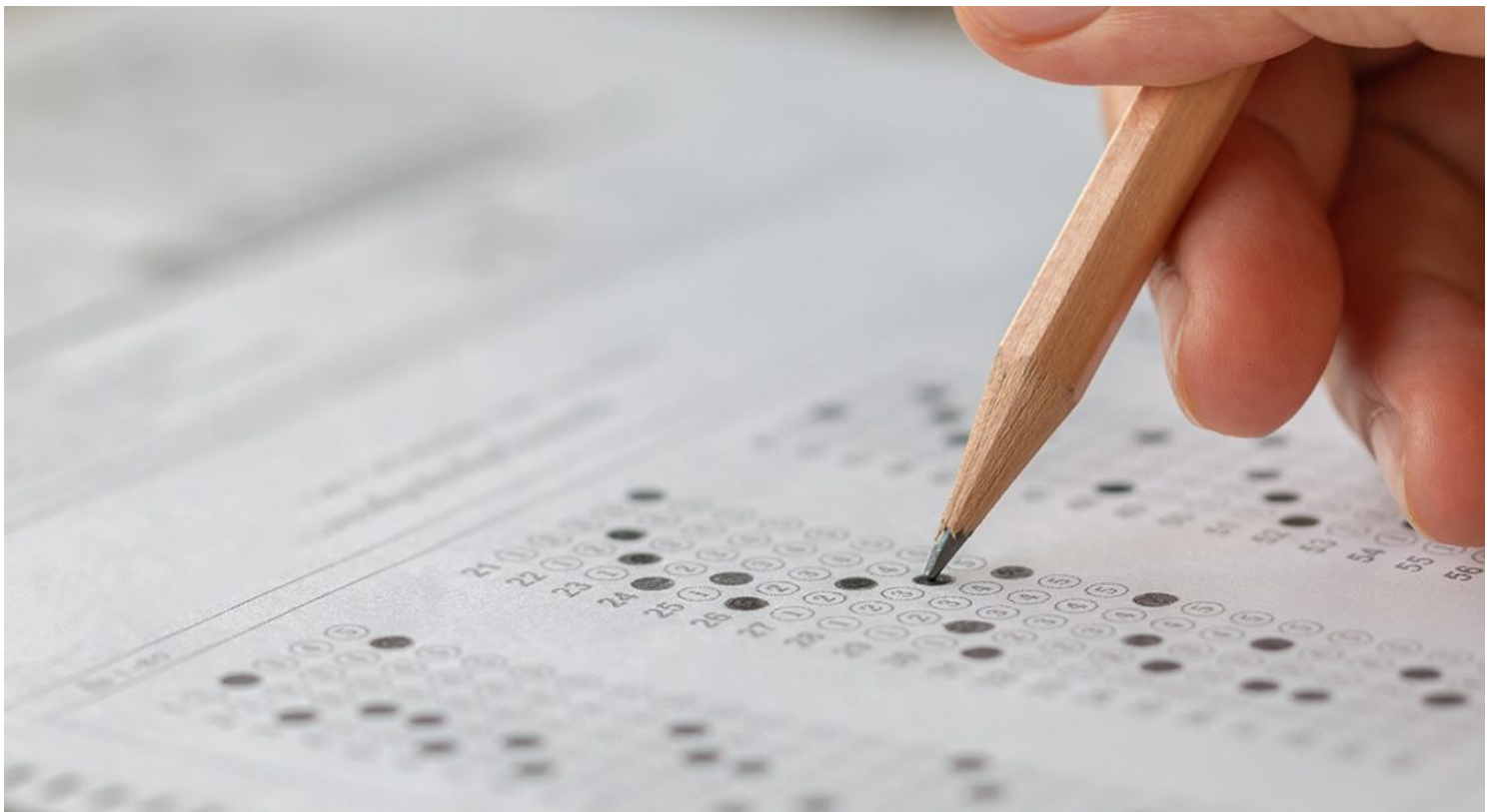


NEWS & INSIGHTS

AI-driven Safety Defense Part 3: The Test That Tells You If the Right Driver Is Behind the Wheel

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This is Part 3 of the “Denuclearization” series. You can read [Part 1 on AI supervision here](#) and [Part 2 on AI-verified hiring documentation here](#).

Two conversations — [one with Garth Pitzel](#), vice president of safety at Bison Transport, and [one with PJ Barkley](#), president and CEO of Impirica — reveal a technology that is no longer theoretical. It is already reshaping how the

industry's top carriers hire, monitor, and make return-to-duty decisions for their drivers.

Bison reduced its entry-level driver training washout rate from 26% to 7% after implementing cognitive testing. That number alone reframes the conversation.

Why It Matters

The most common attack in a trucking nuclear verdict case is the negligent hiring or negligent entrustment claim. Plaintiff counsel builds an argument that your carrier knew — or should have known — that the driver was unfit.

Cognitive testing answers that challenge with objective, science-based data. Impirica, a company that provides cognitive-based assessment tools designed to measure impairment risks in commercial drivers, has a platform built on nearly 300,000 real-world evaluations correlating cognitive performance to actual behind-the-wheel driving — not simulations, not extrapolations.

That database is your defense. It is not an opinion. It is not a personality assessment. It is functional fitness — documented.

The Details

What Bison found:

- Washout rate in entry-level training: down from 26% to 7%
- Estimated savings of approximately \$14,000 per driver who exits training early
- Reduction in early-stage maneuvering accidents
- Personalized training paths: some drivers proceed normally, some get additional coaching, some get added monitoring

How Impirica approaches it:

- Tests 11 of the 12 established cognitive skills essential for commercial vehicle operation
- Measures reaction time, executive function, working memory, short-term memory, and ability to process cues
- Mobile-deployable — not limited to a clinic or office
- Results are age-normed — a 55-year-old is not compared against a 25-year-old

What to Watch

Three use cases are emerging beyond initial hire:

1. **Ongoing monitoring:** Impirica's data shows that between 2% to 3% of any fleet will flag elevated risk at a given point in time. That's not from misconduct, but from fatigue, medical changes, or stress. Technology like this lets safety managers address that 2% to 3% instead of auditing everyone.
2. **Return-to-duty:** Bison already uses cognitive testing as part of its return-to-work process following injury or medical leave. The data answers the question of whether a driver is cognitively ready, not just physically cleared.
3. **Post-incident review:** Testing after a near-miss or performance decline (before a serious accident) allows carriers to identify whether a behavior pattern reflects impairment, cognitive shift, or something that can be addressed through targeted intervention.

If you have questions on cognitive employment testing and how you can implement it at your company, please [reach out to me](#) at any time.

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