

Potential ELDT Benefits and Related Questions for ELDTAC

Safety benefits:

- 1) Is there a relationship between driver training and safety?
 - a. Are there any known studies that examine this relationship?
 - b. Is there carrier/association data to proxy improvements in safety outcomes? (e.g., Con-way, OOIDA, Werner)
 - i. Are data from such entities transferable to estimate impacts across the industry? FMCSA believes these data tend to be fairly carrier-specific.
 - ii. With enough data from a variety of sizes of carriers, plus OOIDA data supporting impacts for smaller independent carriers, a reasonable empirical estimate may be possible.
 - iii. How many owner-operators are really “entry level?” Intuitively, new drivers are likely to work for larger carriers and become owner-operators after gaining experience in their careers.
 - c. How granular can we obtain such data – e.g., if only available from freight carriers, is it reasonable to assume similar safety deltas in other categories (e.g., motorcoach, school bus)?
 - i. FMCSA believes that the transferability of empirical findings from freight carriers to passenger carriers is low.
 - ii. Therefore data specific to motorcoach operators, school and other bus operators, and hazmat operators is important to develop credible empirical estimates of safety benefits across the diversity of motor carrier operations.
- 2) What types of crashes are most likely prevented (or severity diminished) as a consequence of driver training?
 - a. How does this vary across the diversity of motor carrier operations?
 - i. What types of crashes do motor carriers target in their safety-specific post-CDL finishing schools? Presumably carriers utilize information from safety management systems to identify specific safety concerns, then seek to mitigate them through training. Perhaps they have before and after data on efficacy of training?
 - b. Can we profile these “preventable” crashes using existing data sources to estimate the costs of the types of crashes training mitigates? (The benefit here is the prevention of crash costs).

- c. FMCSA believes there may be a large number of relatively low-cost property damage only (PDO) crashes that go unreported (e.g., vehicles striking fixed objects on private property).
 - i. These types of incidents may be among the most likely to be prevented through driver training. The benefit of preventing such crashes may be low at a per-incident level but significant based on the number of such incidents.
 - ii. Additional benefits of preventing these minor PDO incidents are: reduced vehicle downtime and associated opportunity cost of idle capital, and reduced opportunity cost of driver time.
 - iii. Because these are largely unreported incidents, FMCSA does not have data to quantify these and will need industry-supplied data to allow quantitative consideration of this potential benefit in the RIA.
- 3) To what degree do emerging technologies (examples: speed limiters, electronic stability control) provide safety benefits that substitute for certain components of safety training?
- a. Carriers have noted that power units equipped with advanced safety technologies experience substantial reductions in crashes relative to other power units.
 - b. If the ELDTAC can provide data quantifying the deltas in these areas (e.g., what percentage of PUs currently utilize these technologies and at what rate is that number growing during the next 10 to 15 years), FMCSA can seek to control for this factor so as not to over-estimate this rule's benefits.
- 4) How long do the benefits of ELDT last for a typical driver? In other words, absent this rule, how much on-road driving experience must a new CDL holder achieve before he or she is as safe a driver as a new CDL holder having completed this rule's curriculum?
- a. Should this be based on time as a CDL holder, or on exposure? Actual exposure (VMT, or hours of driving) seems more logical as an individual may hold a CDL yet accrue minimal VMT in the period studied.
 - b. After several years of driving (post-training), is there any decline in driving safety, potentially resulting from:
 - i. Forgetting key principles learned in training and adoption of "bad habits"
 - ii. Over-confidence by drivers for whom no crashes or near-misses have occurred.
 - c. Can/should we account for the potential decline in safety performance noted in (b)? The rule is not expected to require refresher training. However, carriers that offer initial + refresher training may continue to offer refresher training even if they forgo some initial training in response to this rule.

Non-safety benefits:

- 1) Potentially decreased training expenses borne by carriers that currently provide drivers with training.
 - a. This impact may vary by size of carrier. Which types of carriers are most likely to realize a benefit in this area?
 - b. To what degree might those carriers reduce expenditures on driver training resulting from this rule?
- 2) Increased driver wages (a benefit to current CDL holders) – a possible outcome resulting from:
 - a. Need to incentivize would-be drivers to bear cost of completing ELDT.
 - b. Possible reduction in number of new drivers entering the labor pool resulting from unwillingness to bear training costs (barrier to entry issue).
 - c. Note: a general increase in driver wages is a *cost* to carriers that may substantively offset potential reduced carrier expenditures on driver training.
- 3) Increased *profit* for training programs resulting from increased demand for training.
 - a. Increased revenue for training programs (at an aggregate level) is likely.
 - b. How much of that increased revenue will be profit is unknown – data on the profit margins of training programs would provide a credible basis to estimate the aggregate increase in profit as a function of demand.
 - c. Although training program profit is a benefit to the programs it is a cost to those funding the training, therefore likely a net wash but still a distributional effect of the rule that requires analysis.
- 4) Certification or accreditation of training entities – may have benefits similar to (5) below.
- 5) Enforcement against fraudulent CDL training programs – many entities benefit from this.
 - a. Those seeking training will benefit by getting higher quality training.
 - b. Enforcement agencies and FMCSA will have an easier time of identifying fraudulent CDL training programs through recordkeeping data acquired resulting from this rule – fewer wasted resources.
- 6) Decreased vehicle maintenance expenses: if training encourages drivers to drive in ways that minimize hard braking and hard acceleration, for example, there is less resulting wear and tear on vehicles that reduces the frequency at which brake, engine, and tire servicing is needed.
- 7) Increased operational life of vehicles: vehicles less likely to be involved in accidents and less likely to require frequent maintenance may be operational longer than otherwise.

This translates to less depreciation -- higher resale value for first owners and longer operational life for subsequent owners.

- 8) A decrease in insurance premiums as a result of a better safety record.
 - a. Data from the insurance industry or from carriers linking premiums to carrier safety records could provide a quantitative basis to consider this impact.
 - b. We recognize that proof of training on its own does not directly lead to reduced insurance premiums; insurers need to see several years of improvements in real-world safety outcomes to potentially reduce premiums.
- 9) Increases in achieved fuel economy: FMCSA outreach conducted in fall of 2014 repeatedly heard of training-related gains in fuel economy from carrier and industry group representatives.
 - a. Note: benefits in this category must be distinguished from those projected to result from EPA/NHTSA MD/HD Fuel Economy/GHG regulations.
- 10) Environmental benefits (reduced CO₂ emissions, criteria pollutant emissions of CO, VOC, NO_x, PM₁₀, PM_{2.5}): Improved fuel economy also reduces GHG and other pollutant emissions which can be monetized.
 - a. Note: benefits in this category must be distinguished from those projected to result from EPA/NHTSA MD/HD Fuel Economy/GHG regulations.
 - b. If safety improvements resulting from this rule are projected to reduce the frequency of HAZMAT incidents, benefits of reduced environmental damage and reduced clean-up costs may be realized.

Potential Costs of an ELDT Rule for ELDTAC Consideration

Potentially Affected Entity: CDL Drivers

This category of potentially affected entities includes:

- **New Entry-Level CDL Drivers**
 - **Without endorsements**
 - **With endorsements** (P, S, or H)

Potential costs that may be incurred by these entities include:

- *Tuition* (may include interest plus principal if student debt is incurred; other issues include potential eligibility for Federal student loans, private student loans, and/or grant money).
- Potential *increase in driver training tuition rates* (potentially resulting from increased demand for driver training and curriculum enhancements necessary to meet rule's requirements)
- *Materials* costs related to driver training (e.g., documents, training guides, testing materials, etc.)
- *Additional CDL license fees* (e.g., if SDLAs incur additional costs (as noted below) and attempt to recoup some or all of those additional costs from new CDL applicants, etc.)
- *Travel* expenses to and from training (e.g., transportation, lodging, etc.)
- *Recordkeeping* (e.g., maintenance of driver training certificates and records by drivers, etc.)
- *Opportunity cost* (e.g., time spent by new CDL drivers in training, or traveling to and from training, that otherwise would have been normal work hours resulting in income earned, etc.)
- We believe every driver already received SOME training, so all these costs are relative to existing baseline expenses.
- What are the impacts of tuition reimbursement? What % of drivers already receive some reimbursement from employers? Can we get this from industry?
- What is the training capacity as it relates to geographical locations? What is the distribution? For example, is there a school in WY?

The CDL Drivers category of potentially affected entities also includes:

- **Existing CDL Drivers**
 - This would apply to upgrades, Class B → Class A or someone who would want to get a passenger or hazardous material endorsement.

Potential costs that may be incurred by existing CDL drivers is primarily limited to:

- *Recordkeeping* (over the analysis period, new CDL drivers will transition to being classified as existing CDL drivers with the result that there will be a growing number of existing CDL drivers subject to additional recordkeeping burden regarding their driver training certificates and records)

Potentially Affected Entity: Carriers

This category of potentially affected entities includes motor carriers, namely **the transportation operations of motor carriers** (in contrast to any in-house training functions provided by motor carriers, a.k.a. finishing schools, which are categorized separately under “Training Entities” below).

Potential costs that may be incurred by these entities include:

- *Training costs* borne by the motor carriers (e.g., direct costs of in-house training programs, and/or costs of reimbursing new drivers fully or partly for driver-paid training, etc.). This is in contrast to training costs borne by drivers (which is categorized separately above).
- *Recordkeeping* (development and maintenance of driving training records by carriers).
- *Increased labor costs* (from potential “barriers to entry” effect in driver labor market resulting from increased training requirement)
 - Shortage of drivers
 - How many brand new drivers are coming into the industry?
 - How many new drivers need to continue entering the industry in future years to meet projected demand?
 - Are trends in turnover and labor market entry stable or subject to significant variance?
 - How do these trends vary across carrier types/sizes?
 - Internal research says that these individuals are coming from industries like construction. Overall, it is hard to get young people into the industry.
- Cost to motor carriers seeking to get certified as training institutions?

Potentially Affected Entity: Training Entities (What do the states require of these organizations?)

This category of potentially affected entities includes:

- **Third-Party Training Schools** (also sometimes referred to Private or Proprietary Post-Secondary Driving Training Schools; though strictly speaking Post-Secondary Vocational-Technical Schools and Colleges & Universities are “third party,” a distinguishing characteristic of Third-Party Training Schools as the term is used here is that they are focused exclusively on commercial motor vehicle driver training, whereas Vocational-Technical Schools and Colleges & Universities typically offer their commercial motor vehicle driver training as just one course of study among many other courses of study in other subject matter areas).
- **Post-Secondary Vocational-Technical Schools**
- **Universities, Colleges and Community Colleges**
- **Carriers** (in-house training, a.k.a. finishing school)
- Federalism implications? See <http://www.gpo.gov/fdsys/pkg/FR-1999-08-10/pdf/99-20729.pdf> for corresponding analysis requirements.
- Is there a presumption that some schools (programs) are accredited?
 - Sometimes there is a 2 year operation period requirement plus a financial review of the operation prior to accreditation.

- It is possible that we may bless some programs of certain states if they meet the requirements.

Potential costs that may be incurred by these entities include:

- *Creation of new training entities*
- *Expansion of existing training entities*
- *Transitional costs to the training entity industry* (some training entities may decide to shut down rather than meet ELDT requirements; teach-out costs, i.e., completion of instruction for students currently enrolled in an institution that decides to shut down, etc.)
- *Certification or accreditation*
- *Recordkeeping* (development and maintenance of driver training records by training entities)
- *Development and possible ongoing revision of new training curriculums*
- *Hiring of additional instructors*
- *Additional instructor education and training*
- *Acquisition, maintenance and operation of training vehicles (power units, trailers, etc.)*
- *Acquisition, maintenance and operation of simulators (this rule is unlikely to prescribe use of simulators; can presume training entities will pursue less costly alternatives to simulators).*

Potentially Affected Entity: State Driver Licensing Agencies (SDLAs)

This category of potentially affected entities includes **state departments of motor vehicles, registrars of motor vehicles, etc., who issue CDLs.**

Potential costs that may be incurred by these entities include:

- *Recordkeeping* (e.g., potential development and operating costs for a National Registry for recipients of Training Certificates, possible CDLIS updates, etc.)
- *Enforcement* (e.g., review and inspection of driver training certificates prior to CDL testing and CDL issuance, etc.)

Potentially Affected Entity: Non-SDLA State or Local Government Agencies

This category of potentially affected entities includes **state or local agencies, other than SDLAs** (which are categorized separately above). Such non-SDLA state or local agencies may include state departments of education, secretary of state offices, professional & vocational license boards, etc.

Potential costs that may be incurred by these entities include:

- *Additional administrative oversight* (e.g., issuance and filing of additional professional & vocational licenses for new training schools, new driving instructors, etc.)
- *Enforcement* (e.g., enforcement of state or local rules regarding educational institutions and training schools, driving instructors, etc.)

Potentially Affected Entity: Federal Motor Carrier Safety Administration (FMCSA)

This category of potentially affected entities includes the **Federal Motor Carrier Safety Administration (FMCSA)**, its field offices and staff, and headquarters office and staff.

Potential costs that may be incurred by these entities include:

- *Enforcement* (e.g., potential additional burden or time required during compliance reviews and/or roadside inspections to inspect driver training certificates, etc.)
- *Recordkeeping* (e.g., potential development and operating costs for a National Registry for recipients of Training Certificates, possible CDLIS updates, etc.)

Potentially Affected Entity: State and Local Enforcement Agencies

This category of potentially affected entities includes **State and local enforcement agencies (law enforcement, highway patrol, public utilities commissions, etc.)**.

Potential costs that may be incurred by these entities include:

- *Enforcement* (e.g., potential additional burden or time required during compliance reviews and/or roadside inspections to inspect driver training certificates, etc.)

Potentially Affected Entity: Society

This category of potentially affected entities includes the sum total of **entities and individuals beyond those specifically categorized above**.

Potential costs borne by society as a whole primarily include environmental impacts, primarily air quality impacts resulting from any increase in fuel consumption (from increased behind the wheel training) resulting from this rule. They are listed below but expected to be insignificant.

- *CO₂ emissions*
- emissions of EPA criteria air pollutants:
 - *CO emissions*
 - *VOC emissions*
 - *NO_x emissions*
 - *PM₁₀ emissions*
 - *PM_{2.5} emissions*
 - *SO₂ emissions*

Other Questions?

What are the cost impacts of school bus training not mentioned above?

- This is estimated at around 30-40 hours of training.

What about postal driver training?

How do we account for the military personnel who want a CDL?

- How many military personnel enter the driver workforce per year?
- Are there any clear trends over time to this number?