Federal Motor Carrier Safety Administration

Effectiveness of Safety Culture

Research Demonstration Project

David Goettee
FMCSA, Office of Analysis, Research and Technology
Lew Grill
The SAGE Corporation, Inc.
Walter Spiegel
DecisionPath Consulting, Inc.
Douglas Kindred
The SCORE Association

TRB Truck and Bus Safety Committee
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Safety Culture Background

- FMCSA sponsors the TRB synthesis reports. Report 14 says a Safety Culture can be very beneficial to operation of a motor carrier. It hypothesizes it should apply to small motor carriers, but questioned how it could be done.

- This study is testing methods to foster a safety culture in small, new entrant motor carriers.

- A constrained preliminary test of this concept was conducted in 2005-6 and obtained encouraging ad hoc results plus valuable lessons learned.

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What is "Safety Culture"?

(Definition from Synthesis Report 14)

- Shared values (what is important here) and
- Beliefs (how things work here)

These interact with:

- The organization's structures and
- Control systems [decision-making processes]

It produces — Behavioral *Norms* (the way we do things around here).

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Carriers Included in Demonstration

- "New Entrant" carriers
  - Montana all non-HM – Freight Only Carriers
  - Almost all are small companies, with less than 5 drivers and few assets
  - Often poorly versed in any aspect of running a motor carrier.
  - Commonly not financially stable

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Support of FMCSA's Mission

FMCSA believes this research will demonstrate the effectiveness of this approach for:

- Promoting a safer driving environment
- Training of small, new entrant motor carriers in necessary basic skills
- Value of sharing training responsibilities with partners and stakeholders.

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Experience from National Highway Traffic Safety Administration (NHTSA)

- The alcohol program was started in the 1980's
- NHTSA found that a combination of education and enforcement ("Carrot & Stick" approach) has a larger impact than either approach alone. There is a multiplier effect in combination.

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How to Proceed?

- Education has historically been applied mostly as a self-help approach thru published materials and scattered seminars.
- Increasingly web-based training is being promoted as a possibly more effective self-help method.
- This research will test the idea of shaping carrier and driver behavioral decisions by providing several different early basic training interventions to accompany more focused enforcement.

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Concept of this Research Project

Test hypothesis that regulated new entrant motor carriers will be safer and have fewer crashes if they are trained and assisted near the genesis of the company in each of the following areas, *in concert*:

- Importance to them of a positive "Safety Culture" governing their decision-making processes
- Better knowledge of details regarding FMCSA's safety regulations
- Better knowledge of financial and business basics

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Background for Concept

- Most large, long established carriers *have ascertained* the importance of a strong safety culture on their profitability. Most new, small motor carriers *do not* start out with this knowledge

- This lack of knowledge regarding the value of a safety culture causes them to forego safety if there are immediate cash flow pressures. That causes safety problems that commonly contribute to driving small carriers out of business

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Why We Think This Will Work

Hypothesis - Fostering adoption of a safety culture will assist in creating both a safe and long-term viable company.

- Data suggests financial stability of motor carriers is correlated with safety performance.

- Thus, we hypothesize that early training in (1) business management (2) monitoring finances and (3) FMCSA regulations likely is important to safety decisions.

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Planned Partners

- Regulatory training will be provided by The SAGE Corporation, an accredited third party educator and FMCSA regulation specialist.
- Business and financial training will be provided by SBA's Service Corps of Retired Executives (SCORE) volunteers.
- Motor carrier knowledgeable volunteers will augment SCORE for industry specific business practices.

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Planned Partners (cont.)

- DecisionPath Consultants will conduct data analysis.
- Montana State University will propose how to develop Social Norms applications for possible follow-on work.

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Approach to Foster a Safety Culture

- We are adding materials to the information SCORE and SBA use in their training and technical assistance programs.

- SCORE/SBA will point out the importance of having safety guide the carrier's daily decision-making processes for long-term financial survival.

- The SCORE/SBA general safety culture training will reinforce the detailed regulatory compliance that will be taught by The SAGE Corporation.

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Cooperative Agreement

- A Cooperative Agreement with SAGE makes them responsible for management oversight of work by all partners. This includes:
    Regulation training; business and financial training by SCORE; recruitment of motor carrier knowledgeable SCORE volunteers; stakeholders; peer review; and evaluation.

- Each party will work with SAGE to deliver the respective training, collect data for evaluation by DecisionPath Consulting and peer review.

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Possible Stakeholders

SAGE is responsible for recruiting Stakeholders

- Motor Carrier insurance companies
- Other labor training agencies, such as the State office funded by the US Labor Department.
- Montana Motor Carrier Association
- Industry specific groups, such as for forest service, agriculture, petroleum, mining, etc.
- Local newspapers

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Desired Results – Carriers Will:

- Pass the just issued much stricter Safety Audit requirements the first time.
- Receive less violations (FMCSA and traffic)
- Experience less crash involvement than untrained companies.

Therefore,

- They will be safer, and
- Because fewer will be identified as a high-risk motor carriers, it will reduce FMCSA and State partner resource needs.

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Desired Results – Carriers Will (cont)

- See reduced employee on-the-job injuries.
- Have more satisfied and long-term employees. (another known factor in reducing crashes)
- Have lower insurance and workman's comp rates.
- Enjoy better financial standing.
- Still be in business and not designated as high-risk a year/years later.
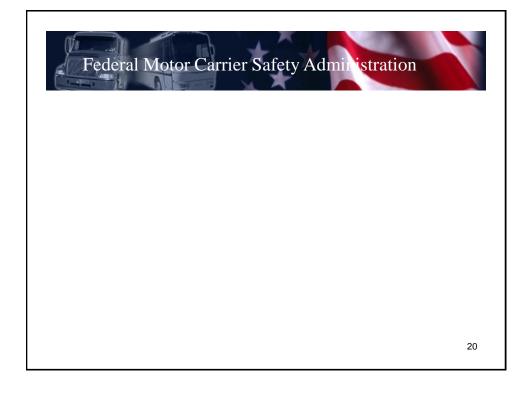
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Potential Next Steps

- Test application of Social Norms Marketing to promote adoption of best safety practices as part of motor carrier's safety culture
- Expand this demonstration and data analysis to other States
- Evaluate effectiveness of applying these approaches to other FMCSA programs
  - MCSIP/PRISM
  - 385.17 (upgrade of unsat-unfit)
  - CSA 2010

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THANK YOU!

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What is Social Norms?

- Social Norms is the theory that the majority of persons shape their behavior based on their perception of societal expectations (peer pressure and enforcement)
- Intervention with "Social Norms marketing" that shapes the perception of what are the societal expectations, can and has, had a significant impact on behavioral norms. We anticipate this approach can impact the safety culture that motor carriers choose to adopt and practice

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Social Norms (continued)

- The success of incorporating social norms marketing as a way to foster adoption of best safety practices may be tested in a later phase. The goal is to instill a positive attitude toward safety so as to lower roadside violations and crashes
- The National MOST of Us Institute® at Montana State University (MSU) was launched in 1998 around this concept that behavior for most or us is dominantly shaped by societal pressures and expectations. They are the leader in developing Social Norms marketing

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Social Norms Marketing

- Intervention to shape Behavioral Norms by communicating shared values, beliefs and attitudes (in this case towards safety) of their peers

- Behavioral Norms resulting from intervention about peer values, beliefs and attitudes will manifest in the motor carriers' actions, policies, and procedures

- We would evaluate whether social norms marketing helps companies adopt safety culture values, beliefs and attitudes, and how they impact on their actions and those of their drivers

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