



# Safety Analysis and Industry Impacts of the Pre-Employment Screening Program (PSP)

## PURPOSE

The Federal Motor Carrier Safety Administration (FMCSA) established the Pre-Employment Screening Program (PSP) to comply with Federal legislation requiring the Agency to provide information on driver safety performance to persons conducting pre-employment screening for the motor carrier industry. The PSP was launched on May 11, 2010, and is a voluntary program. Motor carriers can use the information provided through the PSP—comprised of 5 years of crash data and 3 years of inspection data on the driver—to assist in determining if a driver applicant should be hired. FMCSA embarked on this analysis to determine if using the PSP has a positive impact on CMV safety.

## PROCESS

The study examined crash rates and driver-related out-of-service (OOS) rates for the motor carrier population using PSP. Safety performance of similar sized carriers was compared for a 12-month period prior to and 12 months after the start of using PSP. To obtain the necessary inspection, crash, and carrier size information required for the analysis, the vendor list of motor carriers participating in PSP was merged with the FMCSA Motor Carrier Management Information System (MCMIS) files (e.g., registration, inspection, and crash files). See Table 1.

**Table 1. Carrier class by number of drivers.**

Size Class (Number of Drivers)	Number of PSP Carriers	Number of Non-PSP Carriers
1 (1-5)	355	368,803
2 (6-20)	1,307	43,251
3 (21-100)	2,565	11,078
4 (>100)	1,249	1,811
<b>Total</b>	<b>5,476*</b>	<b>424,943*</b>

\*The number of carriers analyzed in this study only includes those that remained consistently active throughout the entire study period.

To control for the fact that changes in crash rates and OOS rates of carriers using PSP may be attributable to general trends in the industry occurring during the evaluation period (rather than attributable to PSP), data from a control group of for-hire carriers not using PSP was included in the evaluation. This group is called the non-PSP group.

Since the control group carriers did not use PSP, they did not have an actual start date that can be used to define the pre- and post-PSP time periods. Thus, the “average” start date for the test group was used for all control group carriers as a substitute for a start date, which was calculated for each driver size group. FMCSA’s analysis determined that both the PSP group and the control group (non-PSP) experienced a decline in crashes in two size classes and driver OOS rates in all size classes. However, the motor carriers using PSP witnessed a greater decline in both metrics over the non-PSP group in all four size classes (as seen in Table 2).

**Table 2. Adjusted improvement in crash and driver OOS rates for the PSP group (calculated by subtracting the improvement in the non-PSP group from the improvement in the PSP group).**

Size Class (Number of Drivers)	Crash Rate Improvement	Driver OOS Rate Improvement
1 (1-5)	-12.4%*	-18.3%
2 (6-20)	-20.6%	-12.0%
3 (21-100)	-12.1%	-10.1%
4 (>100)	-3.7%*	-12.8%
<b>All Classes</b>	<b>-8.0%</b>	<b>-17.2%</b>

\*Not statistically significant.

The analysis of PSP’s safety impacts uses similar analytical techniques as FMCSA crash and inspection data and follows methodologies previously used by FMCSA to determine safety impacts of other policies or programs.

## STUDY FINDINGS

Both the PSP and the non-PSP groups saw a reduction in crashes between the two observed time periods, which aligns with the recent decrease in total CMV crashes during this time period. In addition, both groups experienced a decline in total driver OOS inspections.

For crash rates, the results indicate that the PSP group experienced a statistically significant greater improvement over the non-PSP group in two driver size classes (driver size classes 2 and 3) as well as for the overall population. There were not statistically significant differences in driver size classes 1 and 4. The crash rates used in this report are calculated by dividing the number of crashes by the number of power units (Table 1).

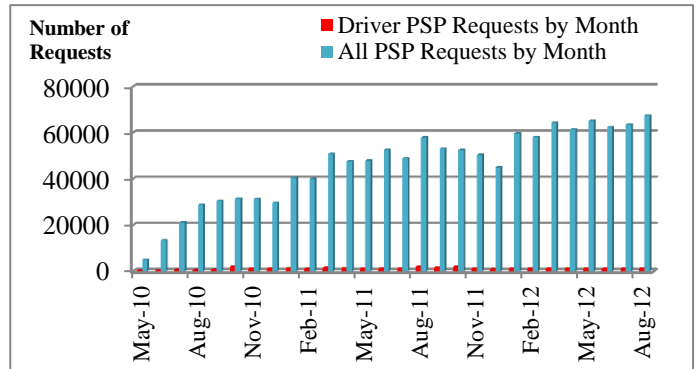
Driver OOS rates improved for the PSP group over the non-PSP group in all driver size classes. Statistical significance was not obtained in driver size class 1 due to the extremely small number of carriers in this size class for the PSP group. In driver size class 4, there simply was not enough change in crash rates (as they are rare events) to show statistical change, although for both size classes, crash rates trend towards decreasing.

### USE OF THE PRE-EMPLOYMENT SCREENING PROGRAM

During this study, FMCSA compiled other industry impact information, to include details on the number of carriers using PSP.

The number of PSP users has steadily increased monthly since PSP began distributing information in May 2010. The total number of requests to the PSP system has also increased. In August 2012, about 35,000 PSP users made about 70,000 requests per month (as seen in Figure 1). These requests come primarily from motor carrier companies.

**Figure 1. Bar graph. Total PSP requests by month, May 2010–August 2012.**



### CARRIER AND DRIVER REACTIONS TO PSP

FMCSA informally queried a number of motor carriers that use PSP to determine how these companies view the system. All represented carriers responded favorably when asked about the system, and reported using it for new hires. Carriers used the PSP report to ensure that drivers accurately report information on their applications and do not omit places of employment or crashes.

Motor carriers responded that they use PSP to help determine if drivers have worked for companies with poor safety ratings in the past. Violations in the PSP report for pre-trip inspections, logbooks, and speeding were high on the list of concerns and were generally believed to be a good indication of a driver's safety performance.

Input from motor carriers generally indicated that using PSP would help them hire the best drivers available and would improve their overall safety ratings. These same motor carriers also noted that drivers with good safety records were in much higher demand and that they potentially could command better compensation and benefits.

For more information, please visit:  
<http://www.fmcsa.dot.gov/facts-research/art-public-reports.aspx>.