Results from the 2012 Drug and Alcohol Testing Survey

This report summarizes the results of the 2012 Federal Motor Carrier Safety Administration (FMCSA) Drug and Alcohol Testing Survey. This annual survey measures the percentage of drivers with commercial driver's licenses (CDLs) who test positive for controlled substances (referred to as drugs in this report) and/or alcohol, as a result of random and non-random (pre-employment, post-accident, reasonable suspicion, return to duty, and follow-up) testing.

BACKGROUND

Motor carriers that employ CDL drivers are required to have drug and alcohol testing programs, pursuant to Part 382 of the Federal Motor Carrier Safety Regulations. Currently, FMCSA requires these carriers to test randomly 10 percent of their CDL drivers for alcohol and 50 percent of their CDL drivers for drugs each year. In addition, FMCSA requires carriers to perform drug and alcohol testing (non-random) on CDL drivers whenever:

- The driver is being considered for employment (only for drugs and only when the driver has not recently been in a drug and alcohol testing program)
- The driver has been involved in a crash (only when the crash involves a fatality, or when the driver receives a citation in a tow-away or injury-related crash)
- The driver is suspected by an employer of using drugs or alcohol while at work
- The driver, who tested positive, has completed the education/treatment process, before returning to duty and for follow-up testing.

In the case of alcohol, an on-duty CDL driver is in violation of FMCSA regulations when his or her blood alcohol content (BAC) is equal to 0.02 grams per 210 liters of breath, or higher. If the driver tests at a concentration of 0.04 or higher, he or she also must undergo referral, evaluation, and treatment, pursuant to Part 382, subpart F. The alcohol violation rate for the industry (determined annually by FMCSA and used to evaluate required motor carrier testing rates) is determined based on a 0.04 cutoff level. For drugs (marijuana, cocaine, opiates, amphetamines, and phencyclidine, or PCP), the cutoff levels for identifying use are based on guidelines set by the Department of Health and Human Services.

The positive usage rates presented herein represent weighted statistical estimates. These estimates are generalizable to the entire population of CDL drivers in the national fleet and have been derived by using standard statistical techniques applicable to stratified samples. It is important to keep in mind that the rates obtained from these procedures do not represent true values but unbiased estimates of the true rates with associated sampling errors.

RESULTS

Estimates of positive usage rates from both random and non-random testing are discussed separately. All survey estimates from the 2012 survey are presented in Tables 1 and 2, which also include estimates from the 2010 and 2011 surveys. Unless specified otherwise, the term "positive usage rate" refers to use of any of the five drugs previously referenced.

Usage rates for specific drugs were also calculated using the 2012 data. However, it should be noted, that the precision levels of these usage rates for individual drugs are considerably lower than the precision levels generally obtained for overall drug use. In addition, in the case of random testing, these drug-specific rates may not necessarily add up to the overall positive usage rate. This stems from the following:

- A driver may test positive for more than one drug, but will only be counted once when calculating the overall positive rate.
- The overall positive rate also includes refusals to test, which are treated as positives for this estimate but are not included in the rate for specific drugs.
- A carrier, when reporting its data to FMCSA, may include information on overall drug use, but may fail to give details for specific drugs.

RANDOM TESTING

For the "2012 Drug and Alcohol Testing Survey," survey forms were sent out to 3,180 randomly selected motor carriers. The majority of these forms (2,071) were completed and returned to FMCSA, resulting in usable data from 1,909 carriers (comprising 475,094 CDL drivers) for random controlled substance testing, as well as usable data from 1,458 carriers (comprising 137,053 CDL drivers) for random alcohol testing. Respondents providing non-usable data represent entities that are out-of-business, exempt, have no testing program in place, or belong to consortia that did not test any drivers for the carrier during 2012.

For random drug testing, the results are as follows:

- **Drugs:** The estimated positive usage rate for drugs, based on random testing in 2012, is 0.6 percent (Table 1). The 95-percent confidence interval for this estimate ranges from 0.4–0.8 percent. If the survey were to be replicated, it would be expected that the confidence interval derived from each replication would contain the true usage rate in 95 out of 100 surveys. For 2011, this rate was estimated to be 0.9 percent.
- **Alcohol:** The estimated violation rate for alcohol usage (the percentage of drivers with a BAC of 0.04 or higher), based on random testing in 2012, is 0.03 percent (Table 2). For 2010 and 2011, the alcohol usage violation rates were so low as to be considered negligible, at 0.0 percent and 0.1 percent, respectively.
- **Part 382 Compliance:** Based on the 2012 survey results, the estimated percentage of subject motor carriers with random controlled substance and alcohol testing programs in place is 65 percent, and the estimated percentage of all CDL drivers participating in such programs is 95 percent. The disparity between these two percentages stems from the fact that small carriers, which constitute a majority of companies in the national fleet, tend to be less compliant with Part 382. Large companies, on the other hand, tend to be more compliant with Part 382 and account for the majority of drivers (although they do not account for a majority of the carriers).

NON-RANDOM TESTING

Estimates of drug positive usage rates for the non-random testing categories are shown in Table 1, beneath the random testing rates. Estimated rates from non-random alcohol testing are shown in Table 2.

With the possible exception of pre-employment drug testing, the sample sizes achieved in the survey for the various non-random testing categories are much lower than those achieved for random testing. As a result, the estimated precision levels for many of these estimates are low, and caution should be exercised when interpreting these estimates. Given the achieved levels of precision in the 2012 and 2011 estimates, year-to-year differences in non-random testing rates between these 2 years are not statistically significant.

Where the estimated rate or standard error is recorded at 0.0 percent or 0.0, respectively, negligible or no drug or alcohol use was recorded in the sample for the particular category. In such cases, the actual positive rate for the population is, in all likelihood, greater than zero, but the sample size was inadequate to produce a more precise estimate.

Table 1. Estimates of random and non-random drug usage percentage rates among CDL drivers for 2010, 2011, and 2012.

Category	2010 Est.	2010 S.E.	2011 Est.	2011 S.E.	2012 Est.	2012 S.E.
Random Testing: Any Drug	1.0	0.2	0.9	0.1	0.6	0.1
Marijuana	0.6	0.1	0.6	0.1	0.4	0.1
Cocaine	0.4	0.1	0.3	0.1	0.1	0.0†
Amphetamines	0.6	0.2	0.2	0.0†	0.2	0.0†
Opiates	0.3	0.1	0.1	0.0†	0.1	0.0†
PCP	0.3†	0.1	0.1	0.0†	0.1	0.0†
Non-random Testing: Pre-employment	1.0	0.1	1.2	0.1	1.3	0.1
Post-accident	1.4	0.6	1.8	0.6	1.3	0.5
Reasonable Suspicion	5.6	2.3	15.7	3.7	37.2	11.2
Return to Duty	0.9	0.4	6.8*	3.4	9.0*	6.7
Follow-up	3.4	1.6	3.1	0.9	4.1	0.7

Est. = Estimate; S.E. = Standard Error
†No or negligible usage among sample cases; standard error was too low or negligible.

Table 2. Estimates of random and non-random alcohol usage percentage rates among CDL drivers for 2010, 2011, and 2012.

Category	2010 Est.	2010 S.E.	2011 Est.	2011 S.E.	2012 Est.	2012 S.E.
Random Testing: (0.04 + BAC)	0.0†	0.0†	0.1	0.0†	0.03	0.0†
Non-random Testing: Pre-employment	0.0	0.0	0.0†	0.0†	0.0†	0.0†
Post-crash	0.8*	0.7	1.5*	1.1	0.1	0.0†
Reasonable Suspicion (.04†)	15.4*	11.7	27.4*	18.4	6.6	2.8
Return to Duty (.04†)	0.1	0.0†	0.0†	17.1	0.0†	0.0†
Follow-up (.04†)	1.0	0.0†	0.0†	0.0†	0.1	0.0†

Est. = Estimate; S.E. = Standard Error
*Estimate with extremely low precision.
†No or negligible usage among sample cases; standard error was too low or negligible.