

SUBSTANCE ABUSE *in* COMMERCIAL TRANSPORTATION

Review of U.S. DOT Drug and Alcohol Prevention and Testing Programs

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The 1997 National Household Survey on Drug Abuse provided some startling insight into the nation's drug use patterns.

The survey indicated that 6.7 million current illegal drug users were employed full-time. This number represents 6.5 percent of full-time employees in the workforce aged 18 and older.

Knowing that some drug abusers could be employed in the transportation industry, the U.S. Department of Transportation has conducted drug and alcohol prevention and testing programs since the 1980s. The Omnibus Transportation Employee Testing Act of 1991 required that U.S. DOT extend these programs to cover approximately 8.3 million safety-sensitive transportation workers within the aviation, motor carrier, rail, and transit industries.

Program Overview

Under the U.S. DOT regulations, employees who test positive for drugs or alcohol are referred to a substance abuse professional for an assessment before returning to a safety-sensitive job. This program, based on the assumption that safety is the most essential element of the nation's transportation system, is designed to deter safety-sensitive employees from drug use and inappropriate consumption of alcohol.

A review of the U.S. DOT program indicates significant success, as measured by steady and in some cases dramatic declines in the transportation industry's drug testing positive rate—from a high of 13 percent to, in some cases, less than 1 percent.¹ As the program has matured, there have been fewer legal challenges to random drug and alcohol testing. The U.S. DOT model has become known as the "gold standard" throughout the country and the world, and the majority of Fortune 500 companies

have adopted its procedures. Because of this program, the transportation industry has become safer for both workers and the traveling public.

Table 1 shows the rate of drug and alcohol testing by each of the modal administrations within U.S. DOT during 1999. The original base rates were 50 percent for drugs and 25 percent for alcohol. The rates are adjusted annually in accordance with the positive rate for each mode during the previous 2 years. For drug testing, if the positive rate is less than 1.0 percent for 2 consecutive years, the random testing rate is adjusted to 25 percent. If the positive rate is equal to or greater than 1.0 percent for 1 year, the random testing rate is raised to 50 percent. For

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**TABLE 1 1999 Random Testing Rates,
U.S. Department of Transportation**

U.S. DOT Operating Administration	Random Drug Testing Rate (%)	Random Alcohol Testing Rate (%)
Federal Highway Administration	50	10
Federal Aviation Administration	25	10
Federal Railroad Administration	25	25
Federal Transit Administration	50	10
Research and Special Programs Administration (pipeline industry)	25	not applicable ^a
United States Coast Guard (maritime industry) ^b	50	not applicable ^a

NOTE: The rates shown are adjusted annually on the basis of data from the Drug and Alcohol Management Information System. Two years of data is required to lower the rate, but only 1 year of data to raise the rate.

^a The Omnibus Transportation Employee Testing Act of 1991 did not mandate testing within this industry.

^b The Maritime Administration is not included in this table as it does not have drug testing responsibility for the maritime industry.

¹ As reported by Mary Bernstein, Director, U.S. Department of Transportation Office of Drug and Alcohol Policy and Compliance, at the 78th Annual Meeting of the Transportation Research Board.



alcohol testing, if the positive rate is less than 0.5 percent for 2 consecutive years, the random testing rate is adjusted to 10 percent. If the positive rate is less than 1.0 percent but equal to or greater than 0.5 percent, the random testing rate is adjusted to 25 percent. If the positive alcohol rate is equal to or greater than 1.0 percent, the random testing rate is adjusted to 50 percent. As with drug testing, if the alcohol rate rises for 1 year, the random testing rate is increased the following year.

Although changes in the testing rates are based primarily on annual data from the Drug and Alcohol Management Information System, each modal administrator may also consider the quality and completeness of the reported data and obtain additional information or reports from employers. The administrator may then decide not to make the rate adjustments specified above. For example, after reviewing the alcohol testing data, the Federal Railroad Administration determined that the testing procedures employed by many of the railroad companies had resulted in skewed data that did not provide an accurate sampling of the positive rates within the industry. Consequently, the agency decided that the random alcohol testing rate would remain at 25 percent for 1999.

Programs of the Modal Administrations

The U.S. DOT program has been in effect for more than 10 years. During that time, each modal administration has faced unique problems and issues in implementing the program.

Federal Aviation Administration

There has been a recent increase in the number of FAA employees refusing to participate in the drug and alcohol testing process. The aviation industry has 364,000 safety-sensitive employees working for approximately 6,400 companies. All of these individuals are subject to drug and alcohol testing. Title 14 of the Code of Federal Regulations, Part 121, Appendices I and J, defines a refusal as a case in which an individual failed to provide a urine sample or adequate breath for testing without a valid medical explanation, or engaged in conduct that clearly

Under Federal Railroad Administration's alcohol and drug policies, all train crewmembers involved in certain qualifying accidents must undergo urine and blood specimen testing and breath testing for drugs and alcohol. In cases that involve deaths of railroad employees, such as this accident in which the train engineer was killed, testing is conducted on various body fluids and tissues.

obstructed the testing process. Adulteration is also considered a refusal to test. (Adulteration is an employee's attempt to introduce a substance into his or her urine that would change or undermine the testing result, or to provide another substance in place of urine.)

All refusals involving employees covered by Part 61 of the Federal Aviation Regulations (air transport pilots), Part 63 (flight navigators and flight engineers), and Part 65 (mechanics) must be reported to FAA. The administration has conducted a total of 74 refusal investigations. A refusal constitutes a violation, which often results in suspension or revocation of any certificate, rating, or authorization issued under Part 61, 63, or 65. FAA has adjudicated 7 cases, resulting in 2 suspensions and 5 revocations. It appears that with the increasing success of the drug and alcohol testing program, employees are more inclined to refuse to take a test than to have a positive test result reported.

Federal Transit Administration

Compliance by a transit company with FTA's drug and alcohol testing program is a condition for receipt of federal funds. The 214,000 safety-sensitive employees covered by the program include vehicle operators, dispatchers, maintenance workers, and armed security personnel. Employers subject to the FTA rule include those that provide mass transportation services and receive funding under Section 3, 9, or 18 of the Federal Transit Act or Section 103(e)(4) of Title 23 of the United States Code.

FTA has developed a process by which employers are audited to ensure compliance. As part of these audits, employers are provided immediate feedback on the corrective actions that must be initiated to achieve compliance with the rule. Additionally, FTA assists employers in complying with the regulations by offering 3-day seminars through the Transportation Safety Institute. In the annual drug and alcohol testing report for 1998, FTA reported a 1.21 percent positive random rate for drugs and a 0.14 percent positive rate for alcohol (above 0.04 breath alcohol content).

Federal Railroad Administration

Since the early 1980s, FRA has used a broad-based approach to reducing the adverse effects of alcohol and drug use within the railroad industry. A unique post-accident testing program facilitates the quantification of alcohol and drug involvement in railroad accidents and evaluation of the agency's alcohol and drug policies and programs. Under FRA rules, certain qualifying accidents require that all train crewmembers be tested. For other qualifying accidents, discretion is permitted with regard to who is



tested, based on circumstances. All qualifying accidents result in testing of urine and blood specimens and breath. In the case of a fatality involving a railroad employee, testing is conducted on various body fluids and tissues.

Specimen samples collected for all qualifying accidents are tested at a laboratory under contract to FRA specifically for the purpose. The intent of the testing is to determine whether alcohol or drug use may have contributed in any way to the cause of the accident. The testing also enables FRA to develop information on safety risks, assists the medical review officer in drawing a conclusion about drug and alcohol involvement in an accident, and helps the employer determine whether alcohol or drug use was a contributing factor to the accident.

Drug and alcohol testing and added emphasis on safety in the railroad industry have had an impact on reducing accidents and improving safety. The number of accidents reaching the qualifying thresholds and the number of employees tested have decreased over the years. The number of employees testing positive (after a qualifying accident) has also decreased dramatically: from 42 employees who tested positive for drugs or alcohol in 1987 to 1 employee in 1996 and 4 in 1998.

Federal Highway Administration

The FHWA drug and alcohol testing program has commercial vehicle highway safety as its primary goal. FHWA has jurisdiction over the largest segment of the commercial transportation industry,

In the United States, a truck and train collide more than nine times each week. FHWA's drug and alcohol testing program has commercial vehicle highway safety as its primary goal.

accounting for approximately 7.3 million safety-sensitive employees who are subject to drug and alcohol testing. The FHWA program also includes on-site compliance reviews that examine a motor carrier's compliance with safety regulations, as well as drug and alcohol program requirements. In addition to compliance reviews, FHWA uses the Drug and Alcohol Management Information System and the drug and alcohol positive rates from random testing to review the impact of the program. During 1995–1996, the drug positive rate was approximately 2.0 percent, with a decrease in 1997 to 1.3 percent, and the alcohol positive rate was 0.2 percent. In fiscal year 1998, approximately 5,000 reviews were conducted. Monetary fines for noncompliance amounted to more than \$2,045,000 from November 1996 to November 1998. During the same period, FHWA also conducted approximately 200 compliance reviews annually of Canadian carriers, resulting in very few enforcement cases. Canadian motor carriers that enter the United States have implemented the drug and alcohol testing program on a voluntary basis. Transport Canada and the Canadian Trucking Association have been helpful in ensuring that Canadian truckers are aware of the program.

Adulteration and Substitution

Adulteration and substitution have been attempted by some job applicants and employees to circumvent the drug testing program. As laboratory technology has become more sensitive and accurate in identifying drug use, employees who use drugs have developed new ways of attempting to subvert the testing

process. Such attempts have increased recently. Laboratories have been authorized by both U.S. DOT and the Department of Health and Human Services (HHS) to test urine specimens for adulterants and other foreign material.² In September 1998 HHS included specific guidance to laboratories for reporting specimen validity (adulteration) test results. This guidance included standard procedures for all HHS-certified drug testing laboratories (approximately 70 laboratories in the United States). According to preliminary information, laboratories that are conducting validity testing are identifying substantial numbers of specimens that have been adulterated by job applicants and employees. As noted earlier, within the U.S. DOT program parameters, adulteration of a specimen is tantamount to a refusal to test and triggers sanctions similar to those associated with a positive test result.

Summary

U.S. DOT and the transportation industry have expended significant effort on diminishing the impact of alcohol and drug use by safety-sensitive employees. Issues specific to the various transportation modes continue to be addressed as experience with the program is gained. The success of these efforts is evident in lower drug and alcohol positive test rates. The ultimate goal, of course, is increased safety for the traveling public.

² As reported by Donna Bush, Chief, Drug Testing Section, Division of Workplace Programs, Department of Health and Human Services, at the 78th Annual Meeting of the Transportation Research Board.