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U.S. Department
of Transportation

**Federal Transit
Administration**

Drug and Alcohol Testing Results 2001 Annual Report

December 2003

Office of Safety and Security

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13. ABSTRACT (Maximum 200 words)

This is the sixth annual report of the results of the Federal Transit Administration's (FTA) Drug and Alcohol Testing Program. The report summarizes the new reporting requirements introduced for calendar year 2001, the requirements of the overall drug and alcohol testing program (the revised CFR Part 40 and CFR Part 655), the results from the data reported for 2001, and the violation and positive rates for calendar years 1996 through 2001.

The results of drug tests—for marijuana, cocaine, phencyclidine (PCP), opiates, and amphetamines—are compared with the results of alcohol tests for the various types of required tests. Statistics are presented for random, post-accident, reasonable suspicion, and pre-employment tests combined and for each individual test type. Those test results are further compared by employer type (transit agencies and contractors), employer size (large, small, and rural), employee category, FTA region, and the drug type.

Statistics on employees returned to duty and results of return-to-duty tests and follow-up tests are presented separately from results of the other four test types because return-to-duty tests and follow-up tests represent a different segment of the test population and not all employers offer rehabilitation.

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Preface

This annual report represents the cooperative efforts of many people. Extensive appreciation is extended to the U.S. Department of Transportation's Federal Transit Administration, the Volpe National Transportation Systems Center, and the following individuals who were instrumental in guiding this project and contributing to its success:

Harry Sapporta
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Volpe National Transportation Systems Center

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Volpe National Transportation Systems Center

METRIC/ENGLISH CONVERSION FACTORS

ENGLISH TO METRIC

LENGTH (APPROXIMATE)

1 inch (in)	=	2.5 centimeters (cm)
1 foot (ft)	=	30 centimeters (cm)
1 yard (yd)	=	0.9 meter (m)
1 mile (mi)	=	1.6 kilometers (km)

AREA (APPROXIMATE)

1 square inch (sq in, in^2)	=	6.5 square centimeters (cm^2)
1 square foot (sq ft, ft^2)	=	0.09 square meter (m^2)
1 square yard (sq yd, yd^2)	=	0.8 square meter (m^2)
1 square mile (sq mi, mi^2)	=	2.6 square kilometers (km^2)
1 acre = 0.4 hectare (he)	=	4,000 square meters (m^2)

MASS - WEIGHT (APPROXIMATE)

1 ounce (oz)	=	28 grams (gm)
1 pound (lb)	=	0.45 kilogram (kg)
1 short ton = 2,000 pounds (lb)	=	0.9 tonne (t)

VOLUME (APPROXIMATE)

1 teaspoon (tsp)	=	5 milliliters (ml)
1 tablespoon (tbsp)	=	15 milliliters (ml)
1 fluid ounce (fl oz)	=	30 milliliters (ml)
1 cup (c)	=	0.24 liter (l)
1 pint (pt)	=	0.47 liter (l)
1 quart (qt)	=	0.96 liter (l)
1 gallon (gal)	=	3.8 liters (l)
1 cubic foot (cu ft, ft^3)	=	0.03 cubic meter (m^3)
1 cubic yard (cu yd, yd^3)	=	0.76 cubic meter (m^3)

TEMPERATURE (EXACT)

[(x-32)(5/9)] °F = y °C

METRIC TO ENGLISH

LENGTH (APPROXIMATE)

1 millimeter (mm)	=	0.04 inch (in)
1 centimeter (cm)	=	0.4 inch (in)
1 meter (m)	=	3.3 feet (ft)
1 meter (m)	=	1.1 yards (yd)
1 kilometer (km)	=	0.6 mile (mi)

AREA (APPROXIMATE)

1 square centimeter (cm^2)	=	0.16 square inch (sq in, in^2)
1 square meter (m^2)	=	1.2 square yards (sq yd, yd^2)
1 square kilometer (km^2)	=	0.4 square mile (sq mi, mi^2)
10,000 square meters (m^2)	=	1 hectare (ha) = 2.5 acres

MASS - WEIGHT (APPROXIMATE)

1 gram (gm)	=	0.036 ounce (oz)
1 kilogram (kg)	=	2.2 pounds (lb)
1 tonne (t)	=	1,000 kilograms (kg)
	=	1.1 short tons

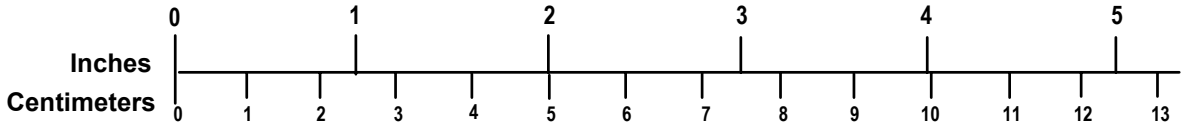
VOLUME (APPROXIMATE)

1 milliliter (ml)	=	0.03 fluid ounce (fl oz)
1 liter (l)	=	2.1 pints (pt)
1 liter (l)	=	1.06 quarts (qt)
1 liter (l)	=	0.26 gallon (gal)
1 cubic meter (m^3)	=	36 cubic feet (cu ft, ft^3)
1 cubic meter (m^3)	=	1.3 cubic yards (cu yd, yd^3)

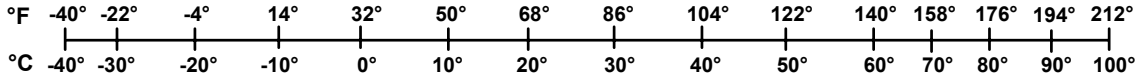
TEMPERATURE (EXACT)

[(9/5) y + 32] °C = x °F

QUICK INCH - CENTIMETER LENGTH CONVERSION



QUICK FAHRENHEIT - CELSIUS TEMPERATURE CONVERSION



For more exact and or other conversion factors, see NIST Miscellaneous Publication 286, Units of Weights and Measures. Price $2.50 SD Catalog No. C13 10286

Updated 6/17/98

Executive Summary

Federal Transit Administration (FTA) regulations require that each recipient (both direct and indirect) of FTA funds (1) implement an anti-drug program to deter and detect the use of prohibited drugs, (2) establish a program to prevent the misuse of alcohol, and (3) report the results of its programs to FTA upon request. Compliance with FTA's drug and alcohol testing program is a condition of Federal assistance. Failure of a recipient to establish and implement a drug and alcohol testing program – either in its own operations or in those of an entity operating on its behalf – may result in the suspension of FTA funding to the recipient.

In 2001, FTA amended its drug and alcohol testing regulations (originally published as 49 CFR Part 653 and Part 654, respectively) and combined them in a single regulation: CFR Part 655, *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations.* Part 655 was issued shortly after the minimum uniform DOT testing program requirements (49 CFR Part 40, *Procedures for Transportation Workplace Drug and Alcohol Testing Programs*) were revised and reissued, in 2000. Part 655 eliminated the previous requirement that all direct funding recipients report their drug and alcohol testing program data to FTA annually. It now requires that recipients report their data only if requested by FTA. All direct recipients must still annually prepare and maintain a summary of the results of the programs that they oversaw during the previous calendar year. Direct recipients must also continue to annually certify regulatory compliance of those programs, and submit the certifications to their FTA regional office. Those who are requested to report must still do so on standard paper forms or electronically by March 15.

In 2001, FTA used a stratified random sampling system to select the funding recipients that were required to submit their data. Sample sizes were determined for each of the three size groups[1] recognized by FTA (large, small, and rural) to ensure a distribution that accurately reflects the relative populations of the three groups. Thus in 2001, for the first time since the initial publication in 1995, the annual results of the FTA Drug and Alcohol Program are based on the results of only a portion of employers that receive FTA funding--406 large employers, 72 small employers, and 187 rural employers.

[1] The population that surrounds the transit agency determines its size category. Large agencies are in areas of 200,000 or more, small is 50,000 to 200,000, and rural is less than 50,000. Transit agencies and contracted service providers are treated as individual entities in each group.

2001 Testing Results

Results are summarized for the following areas:

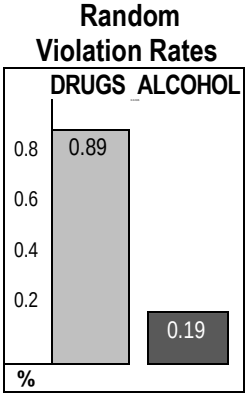
- Violation rates (positive tests and test refusals combined) for random testing
- Accidents resulting in positive post-accident tests
- Positive test rates for four types of testing-- random, post-accident, reasonable suspicion, and pre-employment
- Return to duty

Random Violation Rates

FTA considers random testing to be the most effective deterrent to drug use and alcohol misuse. The results of random tests also provide the best indication of the overall level of drug use and alcohol misuse, and are used by FTA in determining minimum annual random testing rates for the following year. For this reason, employers were requested to report the number of refusals to take a random test, as well as the number of positive test results. Accordingly, violation rates are presented for random tests. Violation rate is used here to refer to the number of positives and refusals combined per person selected to take a random test:

Drug violation rate[2] *= (verified positives + refusals) ÷ (specimens collected + refusals)*

Alcohol violation rate = (confirmed positives[3] *+ refusals) ÷ (screens collected + refusals)*



In 2001, results were reported for 77,842 persons who were selected for a drug test and for 26,478 persons who were selected for an alcohol test. Of those selected for a drug test, 627 had a verified positive result, and 68 refused to take the test. Of those selected for an alcohol test, 36 had a confirmed blood alcohol level of at least .04, and 13 refused to take the test. As shown in the graph at right, the violation rate was 0.89 percent for drugs and 0.19 percent for alcohol. This was the first time that the random violation rate for drugs was below 1.0 percent. If it is below 1.0 percent again in 2002, the FTA Administrator will have the option to lower the rate at which employers must test for drugs from 50 percent to 25 percent. Because the alcohol violation rate was below 0.5, the rate for testing for alcohol will remain at 10 percent in 2002.

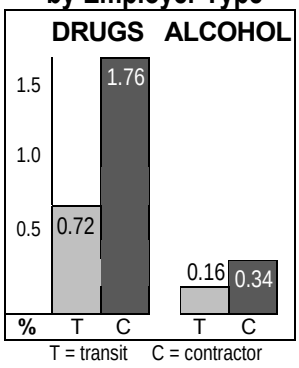
As shown in the following three graphs, the random violation rates were much higher for contractors than for transit agency employees, and the drug rates were

[2] For clarity in presenting the test results, the term "violation rate" is used differently here than in Part 655, where "violation rate" refers only to random alcohol tests.

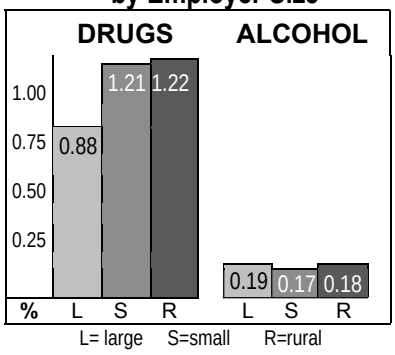
[3] A positive alcohol test is a specimen with a confirmed breath alcohol level of at least 0.04.

lower for large employers than for the other two size categories while the alcohol rates were similar for all three size categories. Nearly 85 percent of those selected for a random test (both drugs and alcohol) were transit agency employees. More than 95 percent of those selected (both drug and alcohol) worked for a large employer.

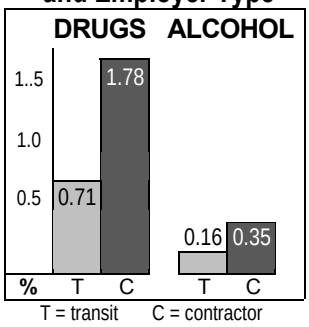
Random Violation Rates by Employer Type



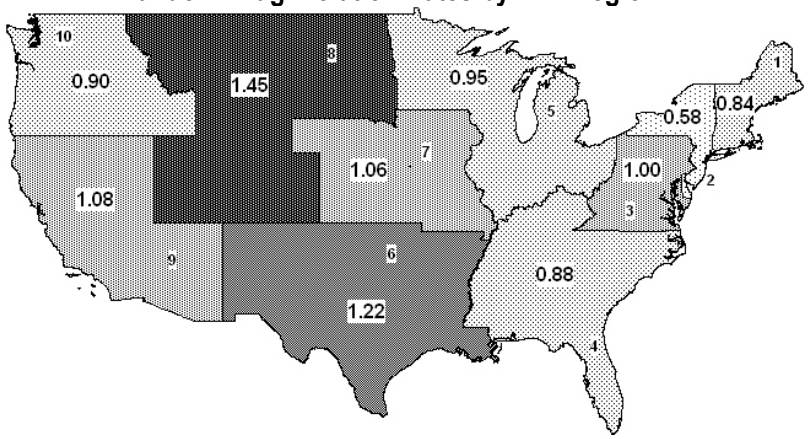
Random Violation Rates by Employer Size



Random Violation Rates by Large Employers and Employer Type

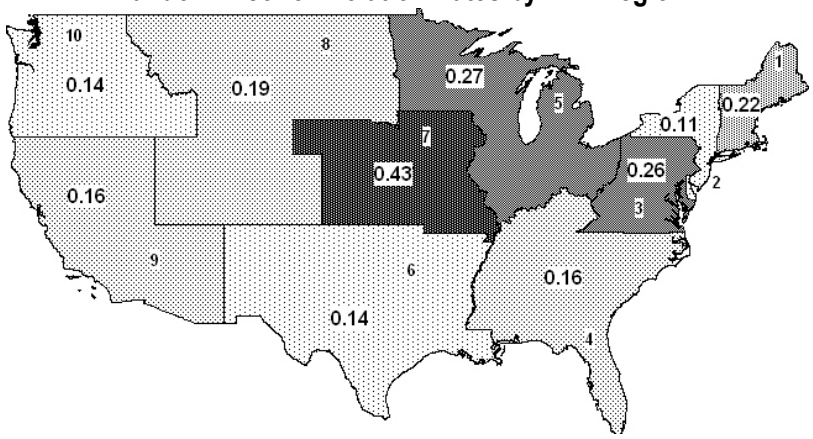


Random Drug Violation Rates by FTA Region



As shown on the map at right, the random drug violation rate was lowest in New York and New Jersey (Region 2) at 0.58 percent, and was highest in the northern mountain and great plains states (Region 8) at 1.45 percent. Only three regions had rates lower than the national average of 0.89 percent.

Random Alcohol Violation Rates by FTA Region



As shown on the map at right, the random alcohol violation rate was also lowest in Region 2 at 0.11 percent, and was highest in the central states (Region 7) at 0.43 percent. Half of the regions had rates lower than the national average of 0.19 percent.

Refusal data were not collected by employee category or by type of drug.

Accidents Resulting in Positive Post-Accident Tests

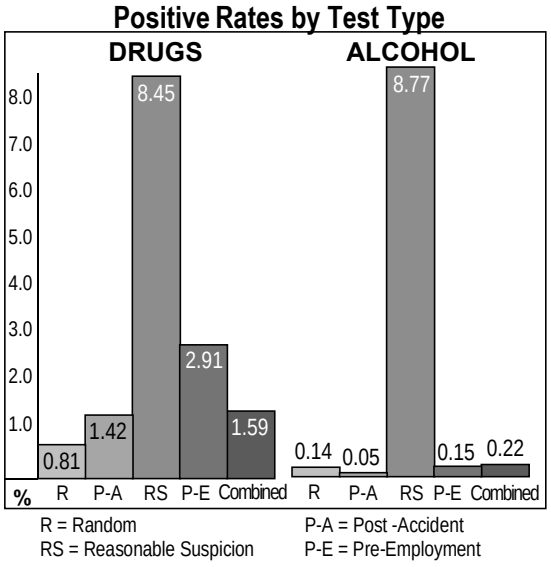
In 2001, employers reported 120 accidents that resulted in a positive post-accident drug test and 8 accidents that resulted in a post-accident alcohol test with a breath alcohol level of at least 0.04 percent. These numbers when normalized to the entire number of employers required to test by FTA were 277 and 17, respectively. None of the accidents reported resulted in a fatality.

Transit agencies reported 65 of the 120 accidents with positive drug tests, and 5 of the 8 accidents with positive alcohol tests. All but 5 of the accidents with positive drug tests were reported by large employers. All of the accidents with positive alcohol tests were reported by large employers.

Positive Test Rates[4] for Four Types of Testing

Because return to duty tests and follow-up tests represent a different segment of the test population (i.e., specimens produced by persons who have already been removed from duty for drug or alcohol violations and have completed a rehabilitation program) and not all employers offer rehabilitation, the data from those tests are not included in presentations of overall rates.

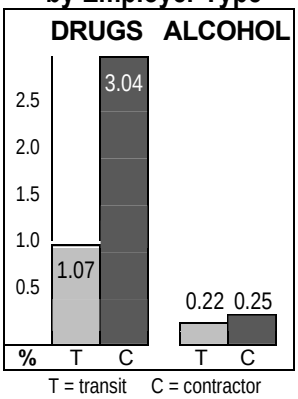
As shown in the graph at right, the reasonable suspicion positive rates were much higher than the random, post-accident, or pre-employment rates for both drugs and alcohol. The random rate was lowest of the drug rates. In fact, the random violation rate (0.95 percent) was significantly lower than the positive rates for any of the other three test types. The post-accident rate was the lowest of the alcohol rates.



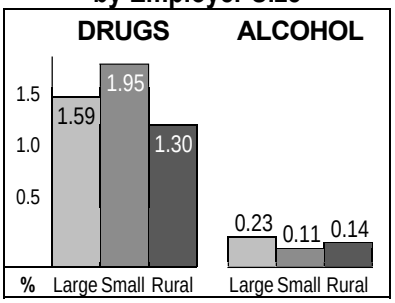
As shown in the following tables, the positive drug rates for the four test types combined are approximately three times higher for contractors than for transit agency employees, the alcohol rates are slightly higher for contractors, both the drug and the alcohol rates by employer type for large employers are very similar to the overall rates by employer type, and small employers had the highest rates for drugs while large employers had the highest rates for alcohol. Of the 131,323 drug specimens collected for all four test types combined, 95 percent were from large employers. Of the 41,076 alcohol screens collected, 96 percent were from large employers.

[4] For clarity in presenting the test results, "positive rate" is used differently here than in Part 655, where it refers only to random drug tests and is the drug equivalent of the violation rate for alcohol.

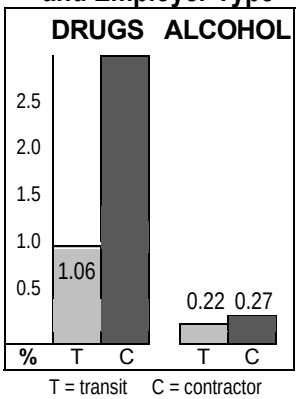
Positive Rates for Four Test Types Combined by Employer Type



Positive Rates for Four Test Types Combined by Employer Size

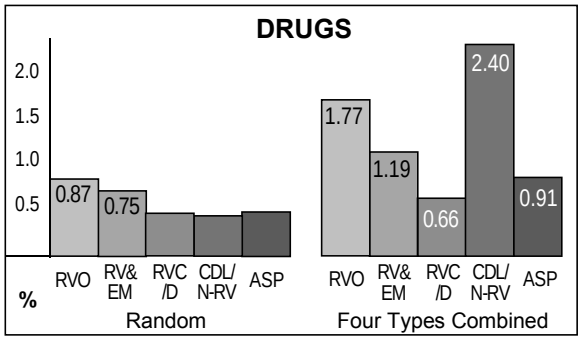


Positive Rates for Four Test Types Combined by Large Employers and Employer Type

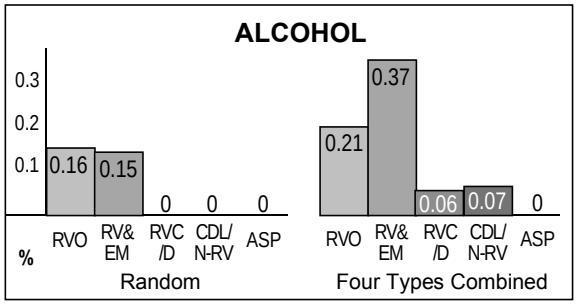


Because refusal data are not reported by employee category, random positive rates are presented below by employee category, as well as the rates for all four test types combined. Though the random drug rate was lowest for the CDL/ non-revenue vehicle category, the combined rate was highest for that category. The revenue vehicle operation category had the highest random rate for both drugs and alcohol. The revenue vehicle and equipment maintenance category had the highest combined rate for alcohol.

Positive Rates for Random Testing and for Four Test Types Combined by Employee Category

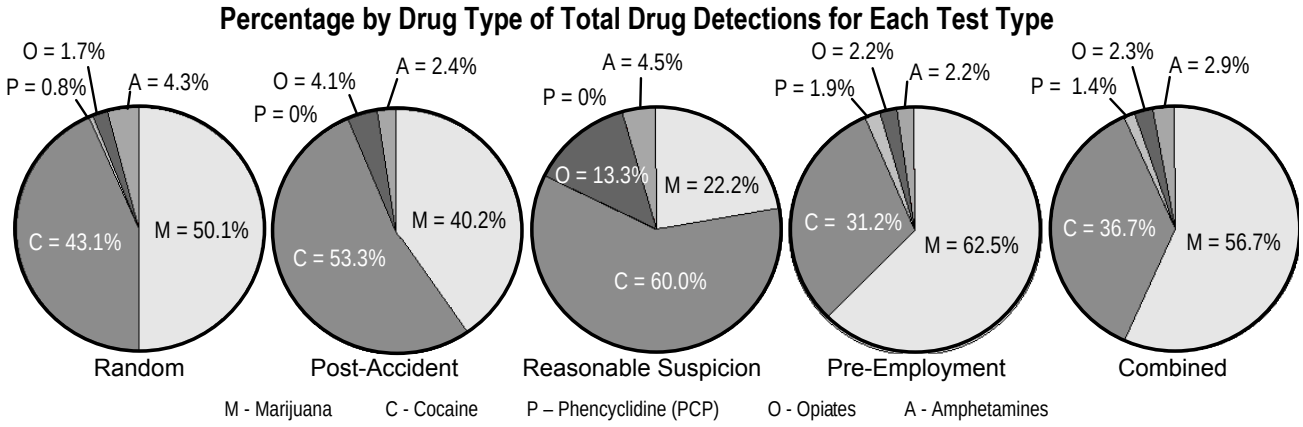


RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

As shown in the following charts, marijuana was detected as often as all of the other drugs combined in random testing, and more often than the others combined in pre-employment tests and for all four test types combined. Cocaine was detected more often than the others combined in post-accident and reasonable suspicion tests. Marijuana was detected second most often in those tests. PCP was detected least often in each of the four test types, and not at all in post-accident and reasonable suspicion tests.



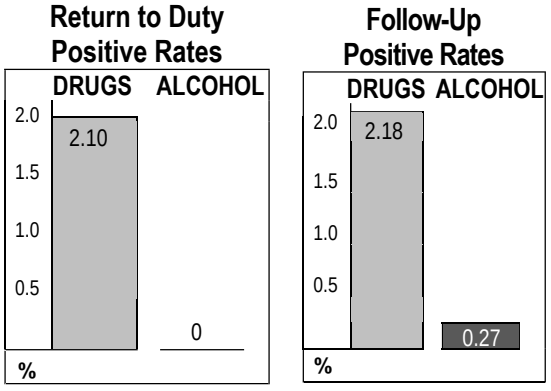
Return to Duty Data

In 2003, employers reported that 289 safety-sensitive employees were returned to duty following a positive drug test or refusal, and 53 were returned following a positive alcohol test or refusal. These numbers when normalized to the entire number of employers required to test by FTA were 689 and 133, respectively.

Transit agencies returned 251 of the employees following a drug positive test or refusal, and returned 48 following an alcohol positive or refusal. Large employers returned 274 of the 289 returned following a drug positive or refusal, and returned 49 of the 53 returned following an alcohol positive or refusal.

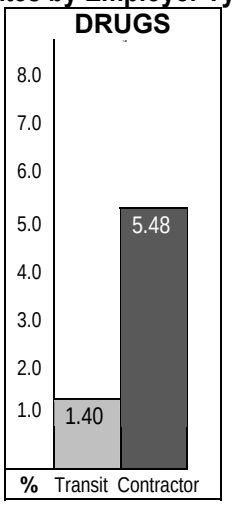
Before being returned to duty, employees must complete a rehabilitation program and submit a negative test for the substance for which they were removed from safety-sensitive duty. Many employers require both a drug and alcohol return to duty test. The returned employees must then complete a series of follow-up tests (for the substance for which they were removed, or both drugs and alcohol) for a specified period following return to duty.

In 2001, 859 return to duty drug tests and 4,956 follow-up drug tests were reported. As shown at right, more than 2 percent of each were positive. None of the 513 return to duty alcohol tests reported were positive, and only 11 of 4,080 follow-up alcohol tests reported were positive.

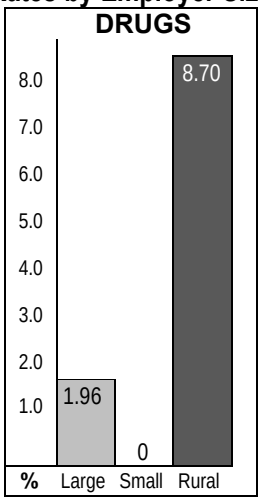


The following six graphs subdivide the rates at right by employer type, employer size, and employer size and type combined. The return to duty graphs show drug rates only because no return to duty alcohol positives were reported. The follow-up chart by employer size and type contains alcohol rates for large employers only because no follow-up alcohol positives were reported by small or rural employers.

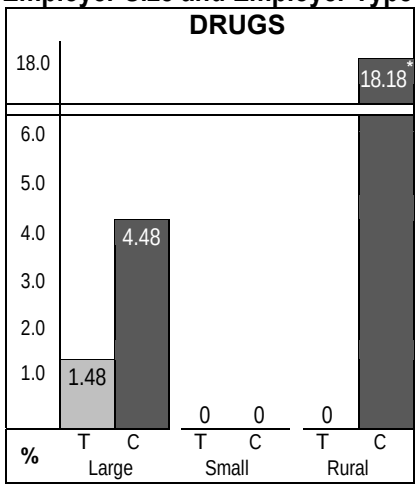
Return to Duty Positive Rates by Employer Type



Return to Duty Positive Rates by Employer Size



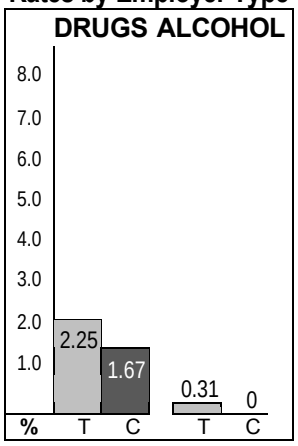
Return to Duty Positive Rates by Employer Size and Employer Type



T = transit C = contractor

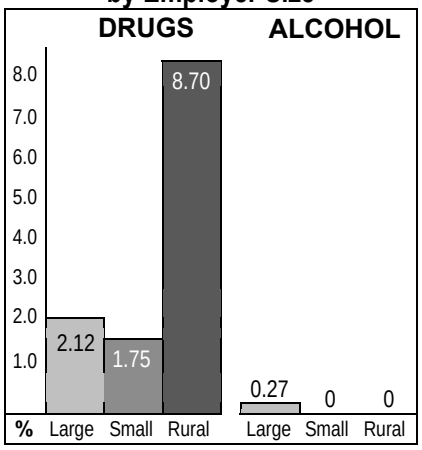
*Sample is not to scale. Size is too small to be considered representative of population.

Follow-Up Positive Rates by Employer Type

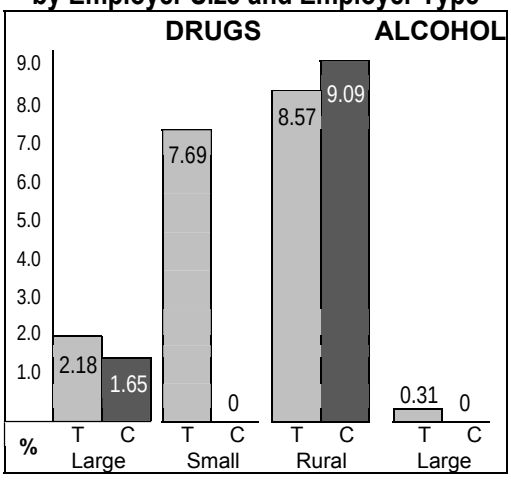


T = transit C = contractor

Follow-Up Positive Rates by Employer Size



Follow-Up Positive Rates by Employer Size and Employer Type

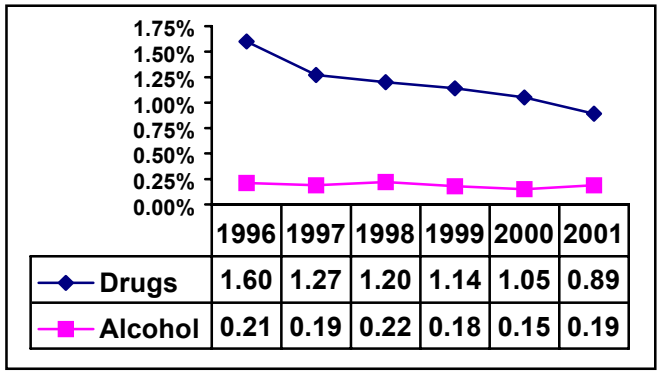


T = transit C = contractor

Trends: 1996 Through 2001

As shown in the graph at right, the drug violation rate dropped for the fifth consecutive year, in 2001, a drop of 15 percent from 2000 and almost 45 percent since 1996. As also shown in that graph, the random alcohol violation rate rose by more than 25 percent in 2001 (to 0.19 percent), but was still nearly 10 percent below the rate for 1996.

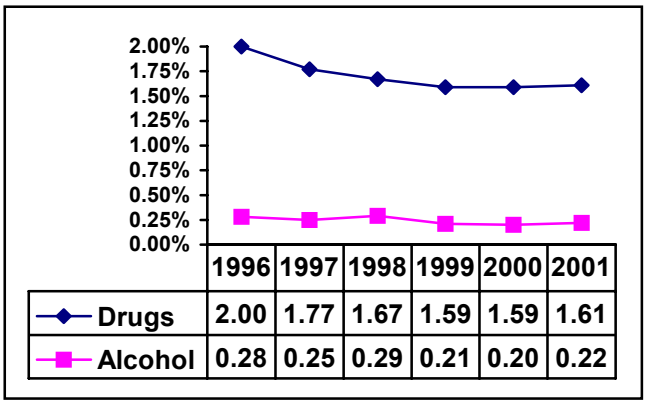
Random Drug and Alcohol Test Violation Rate Trend



	1996	1997	1998	1999	2000	2001
Drugs	1.60	1.27	1.20	1.14	1.05	0.89
Alcohol	0.21	0.19	0.22	0.18	0.15	0.19

The combined positive rates for all six required test circumstances—random, post-accident, reasonable suspicion, pre-employment, return to duty, and follow-up—have been higher for both drugs and alcohol than the random violation rates for each of the six years from 1996 to 2001. The fact that the random rate that includes refusals has been lower every year for both drugs and alcohol than the combined rate for all tests, including random, that does not include refusals is conclusive evidence that random testing is an effective deterrent to drug use and alcohol misuse. Furthermore, as shown above, the combined rate for drugs has leveled since 1999 (and even increased slightly in 2001) while the random violation rate for drugs continued to decrease significantly in both 2000 and 2001.

Total Drug and Alcohol Test Positive Rates for Six Test Types Combined



	1996	1997	1998	1999	2000	2001
Drugs	2.00	1.77	1.67	1.59	1.59	1.61
Alcohol	0.28	0.25	0.29	0.21	0.20	0.22

Table of Contents

1. Introduction

This report is the sixth annual summary of data submitted for entry in the Federal Transit Administration's (FTA) Drug and Alcohol Management Information System (DAMIS). The report summarizes data reported for calendar year 2001, and includes trend analyses based on the annual data submitted for calendar years 1996 through 2001. DAMIS contains the data from all the drug and alcohol tests conducted under FTA regulations between 1996 and 2000, but contains 2001 data from only selected agencies, as explained in Section 1.2. DAMIS also contains the data from all the tests conducted by large agencies in 1995.

FTA regulations require recipients and subrecipients of funding under Title 49 of United States Code (U.S.C.) Sections 5307, 5309, and 5311, and 23 U.S.C. Section 103(e)(4) and their contractors to implement and maintain a program to deter and detect use of prohibited drugs and misuse of alcohol by safety-sensitive employees, unless the recipient is also an operating railroad regulated by the Federal Railroad Administration (FRA).

Section 5307 of 49 U.S.C. refers to block grants to finance capital projects and the planning, improvement, and operating costs of equipment, facilities, and associated capital maintenance items for use in mass transportation.

Section 5309 refers to discretionary grants and loans for capital projects, new and existing fixed guideway systems, an efficient mass transportation system coordinated with other transportation systems, introduction of new technologies, enhancement of urban economic development or incorporation of private investment, and mass transportation projects to meet the needs of the elderly and persons with disabilities.

Section 5311 refers to financial assistance for non-urbanized areas.

Section 103(e)(4) of 23 U.S.C. refers to grants to bus transit systems that operate on Federal-aid highway systems.

1.1 Regulatory Background

FTA issued its first drug and alcohol testing regulations on February 15, 1994 as two separate rules: 49 CFR Part 653, *Prevention of Prohibited Drug Use in Transit Operations*, and 49 CFR Part 654, *Prevention of Alcohol Misuse in Transit Operations*. The FTA rules were issued in response to *The Omnibus Transportation Employee Testing Act*, enacted by Congress in 1991. They expanded the minimum uniform DOT testing program requirements published earlier in 1994 in 49 CFR Part 40, *Procedures for Transportation Workplace Drug and Alcohol Testing Programs*.

The Omnibus Testing Act was intended to promote the health and safety of transportation employees and the traveling public. It required all DOT administrations to issue regulations requiring funding recipients to perform

four types of testing of all safety-sensitive employees for five controlled substances and alcohol, and to establish a prescribed program of rehabilitation and follow-up testing for employees who are given the opportunity to return to safety-sensitive duty after testing positive or refusing to be tested. The Act also required recipients to follow the testing procedures established by the Department of Health and Human Services (DHHS).

After making two notable amendments and several minor changes to its rules, FTA issued CFR Part 655, *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*, which supersedes and combines Parts 653 and 654. Part 655 was published in 2001 to expand the minimum requirements of the revised Part 40, which was published in 2000. The current Part 40 and 655 testing requirements are summarized in Chapter 2 of this report.

1.2 Reporting and Certification Requirements

Part 655.72 eliminated the requirement that all direct funding recipients report their drug and alcohol testing program data to FTA annually. It requires that recipients report their data only if requested by FTA. FTA believes that random sampling is now sufficient to produce an accurate representation of the overall transit industry because five years of universal reporting and analysis has provided an accurate portrait of drug and alcohol testing (including positive rates) in the industry. The intent is to reduce the paperwork burden on a portion of the industry and to reduce FTA's tabulation and analysis effort.

Recipients requested to report must still do so on standard forms by March 15. All direct recipients must still annually prepare and maintain a summary of the results of the programs that they oversaw during the previous calendar year. Direct recipients must also continue to annually certify regulatory compliance of those programs, and submit the certifications to their FTA regional office.

The employers requested to report 2001 data were chosen using a stratified random sampling technique. Sample sizes were determined for each of the three size groups recognized by FTA (large, small, and rural) to ensure a distribution that accurately reflects the relative populations of the three groups. The population that surrounds the transit organization determines the size of operation for each agency. Large, small, and rural organizations are categorized by a population of 200,000 or more, 50,000 to 200,000, and less than 50,000, respectively. In 2001, 406 large employers, 72 small employers, and 187 rural employers were asked to report.

Transit agencies and contracted service providers are treated as individual entities within each group. For example, an agency and two service providers it contracts with will represent three entities in the group's sample population. The samples were also selected using a random number generator or through a systematic process that ordered the entities by a specific criterion, such as alphabetic within state, to ensure that the sample was spread across all regions of the United States.

FTA operating funds are granted directly to most large transit agencies. All other operating grants are provided to the states or to metropolitan planning organizations (MPOs), which distribute the funds to individual transit agencies. Some recipients and subrecipients (transit agencies funded by states or MPOs) rely on additional public or private entities to provide services in whole or in part. The states and MPOs must ensure the accuracy and timeliness of each report submitted by their subrecipients. All direct recipients must ensure the accuracy and timeliness of each report submitted by a service provider, operating or maintenance contractor, consortium or joint enterprise, or a third-party administrator acting on the behalf of a transit agency.

Failure of a recipient to establish a drug and alcohol testing program and to annually certify regulatory compliance and report information as requested, either in its own operations or in those of a subrecipient or an entity operating on its behalf, may result in the suspension of Federal transit funding to the recipient. Falsifying compliance information or certifications is a criminal offense.

1.3 Reporting Assistance

The required reporting forms are available in paper, on data diskette, and on the internet. Copies of reporting guidance and reporting forms and diskettes are available from the DAMIS Project Office at (617) 494-6336. The FTA Safety and Security Clearinghouse can be reached at (617) 494-2108 for additional copies of this report, as well as previously published annual reports. Other technical assistance materials, including the *Implementation Guidelines for Drug and Alcohol Regulations in Mass Transit* and *Best Practices Manual: FTA Drug and Alcohol Testing Program,* can be obtained from the FTA Office of Safety and Security at (202) 366-2896 and on the Office of Safety and Security's Web site: http://transit-safety.volpe.dot.gov/damis.

1.4 Data Analysis and Validation

Data submitted for entry in DAMIS are subjected to extensive analysis and validation, both manual and automated. The process entails detailed review of the consistency and reasonableness of the data in each report, identification of errors or questionable entries, and resolution of any problems in consultation with the reporting agencies. This process enables detection and correction of errors of significant magnitude. However, some statistically minor errors may remain.

1.5 Organization of Report

The remainder of this report contains five chapters and three appendices:

- *Chapter 2* presents an overview of the current Part 40 and 655 testing requirements, including descriptions of safety-sensitive functions, the types of tests to be performed, and the substances to be tested for.
- *Chapter 3* compares the results of the required drug and alcohol tests listed in Chapter 2 and pre-employment alcohol tests. The results are further compared by employer type (transit agencies and contractors), employer size (large, small, and rural), the employee categories listed in Chapter 2, FTA region, and drug type.
- *Chapter 4* provides statistics on the number of employees returned to safety-sensitive duty in 2001 following a positive test or refusal, and summarizes the results of the tests (described Chapter 2) that are required for such persons, using the same categories of comparison as in Chapter 3.
- *Chapter 5* discusses the trends in testing results from 1996 through 2001, and presents random violation rates, random positive rates, and positive rates for all tests performed for each of those years.
- *Appendix A* lists the terms, and their definitions, associated with the FTA drug and alcohol testing program.
- *Appendix B* lists the ten FTA regions and their headquarters.
- *Appendix C* presents by FTA region the number of accidents reported in which a transit agency employee or contractor tested positive in an FTA post-accident test.

2. Overview of Part 40 and Part 655 Testing Requirements

As mentioned in Chapter 1, CFR Parts 653 and 654 were replaced during calendar year 2001 with Part 655, which combines the previously separate drug and alcohol rules into a single rule and expands the requirements in the revised Part 40. FTA believes that combining the drug and alcohol rules will produce one multi-faceted program that can be implemented more efficiently. It also brings FTA into line with the eight other DOT operating administrations that have drug and alcohol testing regulations. The revised regulations contain no significant changes regarding the employees to be tested, type of tests to be performed, substances to be tested for, and the return to duty qualification. This chapter summarizes the requirements of the combined program (in Section 2.1) and describes in detail FTA safety-sensitive duties, the tests required by FTA, and the drugs that safety-sensitive employees must be tested for (in Sections 2.2, 2.3, and 2.4, respectively).

2.1 Overview of Required Testing Program

Employees who perform any of five safety-sensitive functions must be tested for five controlled substances in four circumstances. Such employees must also be tested for alcohol use in each of those circumstances except pre-employment, though employers may, and many do, require pre-employment tests per Part 40 testing procedures. An additional circumstance (return to duty/follow-up) is required for safety-sensitive employees who are a given opportunity to resume safety-sensitive duties after testing positive for drugs or alcohol or refusing to submit to a required test.

Safety-Sensitive Job Categories
Revenue Vehicle Operation
Revenue Vehicle and Equipment Maintenance
Revenue Vehicle Control/Dispatching
CDL/Non-Revenue Vehicle
Armed Security Personnel

See Section 2.2 for a detailed description of FTA safety-sensitive duties.

Test Types
Random
Post-accident
Reasonable suspicion
Pre-employment
*Return to duty/follow-up

See Section 2.3 for a detailed description of tests required by FTA.

Tested Drugs
Marijuana
Cocaine
Phencyclidine (PCP)
Opiates
Amphetamines

See Section 2.4 for a detailed description of the drugs to test for.

*Required only for employees who test positive for drugs or alcohol or refuse to submit to a required test

Any employee who has a verified positive drug test, has a confirmed alcohol test result of 0.04 or greater, or refuses to submit to a test must be immediately removed from safety-sensitive duty. The employee must then be informed of the resources available for evaluating and resolving problems associated with prohibited drug use and alcohol misuse, including the names, addresses, and telephone numbers of substance abuse professionals (SAPs) and counseling and treatment programs. The employer then decides the

disciplinary action to take. To return the employee to a safety-sensitive function, the employer must ensure that the employee successfully completes a course of treatment prescribed by a SAP and produces a negative return to duty test for drugs or alcohol or both, depending on the violation. Once returned to duty, the employee must continue a treatment program administered by the SAP, which includes a series of follow-up tests.

Additionally, an employee with a confirmed alcohol concentration of at least 0.02 but less than 0.04 must be removed from duty for at least 8 hours or until a re-test conducted by the employer shows an alcohol concentration of less than 0.02. If the employee is removed from duty for 8 hours, a re-test need not be administered unless the employee exhibits signs of alcohol use upon returning to duty.

Part 40 also prohibits use, manufacture, distribution, dispensing, and possession of all controlled substances by safety-sensitive employees. Furthermore, Parts 40 and 655 prohibit safety-sensitive employees from consuming alcohol in three circumstances:

- While performing a safety-sensitive function
- Four hours before performing a safety-sensitive function unless the employee produces a breath specimen with a concentration below 0.02 (Employees must be given the opportunity to acknowledge use of alcohol in the past 4 hours and to be tested when they arrive for duty.)
- Eight hours following an accident that meets FTA post-accident testing criteria (described in Section 2.3) or until an alcohol test is performed unless the employee's involvement can be completely discounted as a contributing factor to the accident and there were no fatalities

2.2 Safety-Sensitive Functions

The **revenue vehicle operation** safety-sensitive job category includes employees who operate a revenue service vehicle, regardless of whether it is in service and regardless of whether a fare is collected.

The ***revenue vehicle and equipment maintenance*** category includes employees who maintain revenue service vehicles or equipment. It also includes many maintenance contract employees who perform routine, ongoing repair or maintenance for FTA recipients and subrecipients that have employees, including supervisors, who perform or could be called upon to perform any of the FTA safety-sensitive functions. Maintenance contractors of 5311 funding recipients are not subject to the testing regulations.

Revenue vehicle control/dispatching includes employees who control the movement of revenue service vehicles. This function was much debated during

the recent rule revision process because the title "dispatcher" covers a broad range of duties, not all of which are safety sensitive, throughout the industry. The key consideration is the type of work performed rather than a particular job title. FTA decided not attempt a universal definition of "dispatchers" in Part 655. Instead, each employer determines whether its particular dispatcher performs or may perform a safety-sensitive function.

CDL/non-revenue vehicle includes employees not included in another safety-sensitive category who operate a non-revenue service vehicle (e.g., ancillary vehicle) that requires a Commercial Drivers License (CDL).

Armed security personnel are employees who provide security and carry a firearm.

2.3 Types of Tests

Random testing is considered by FTA to be the most effective deterrent to drug use and alcohol misuse, as well as the most reliable indicator of drug use and alcohol misuse within an agency and in the industry as a whole, provided it is unannounced and unpredictable. Thus, random testing is required to be conducted throughout all workdays and hours of service, and must be conducted at least once per calendar quarter. Selections for testing must be based on a scientifically valid random-number selection method, to ensure that all safety-sensitive employees have an equal chance of being selected for testing each time a selection is made.

In 2001, the number of random drug tests conducted had to equal at least 50 percent of the number of persons in the selection pool when selections were made, and the number of alcohol tests had to equal at least 10 percent of the pool. These percentages can be amended (per Part 655.45) by the FTA Administrator based on the combined percentage of positive tests plus test refusals, i.e.:

(verified positives + refusals) ÷ (specimens collected + refusals)
for modifying drug test rates

(confirmed positives + refusals) ÷ (screens collected + refusals)

The Administrator has the option to reduce a random drug or alcohol testing rate of 50 percent to 25 percent if the combined percentage of positives plus refusals is less than 1.0 for two consecutive calendar years. The Administrator has the option to raise a drug or alcohol testing rate from 25 percent to 50 percent if the combined percentage of positives plus refusals for the previous calendar year was at least 1.0. Additionally, the Administrator can reduce an alcohol testing rate of 25 percent or 50 percent to 10 percent if the combined percentage of positives plus refusals was less than 0.5 for two consecutive calendar years. Conversely, the Administrator can also raise a rate of 10

percent to 25 or to 50 percent if the combined percentage in the previous calendar year was at least 0.5 or 1.0, respectively.

The random testing quotas for 2002 did not change. As shown in Section 3.1, the combined percentage of alcohol positives plus refusals remained below 0.50 (at 0.19), and although the combined percentage of drug positives plus refusals dropped below 1.0 in 2001 (to 0.89), the combined percentage for 2000 was 1.05. If the combined percentage for drugs is below 1.0 again in 2002, the Administrator will have the option to reduce the drug test quota to 25 percent for 2003.

NOTE

Part 655 uses the term ***"positive rate"*** to refer to the concept of the combined percentage of random drug positives plus refusals, and defines the term as including only random drug test data.

Part 655 uses the term ***"violation rate"*** to refer to the concept of the combined percentage of random alcohol positives plus refusals, and defines the term as including only random alcohol test data.

For clarity in presenting test results, those terms are used as follows in this report:

"Violation rate" refers to the combined percentage of positive tests plus refusals for both drugs and alcohol.

"Positive rate" refers to the percentage of verified positive tests of the total number of drug specimens collected and to the percentage of confirmed positive tests of the total number of alcohol screens collected. Positive rate is used to refer to this percentage for all test types, including random.

In other words, in this report, *"violation rate" includes refusals*, and *"positive rate" does not include refusals*.

The testing rate for employers who belong to a consortium applies to the total number of safety-sensitive employees in the consortium's pool. As a result, some individual employers may not appear to meet the random testing requirement.

Post-accident testing refers to tests required following an accident involving a fatality or an accident that meets any of three other criteria and the employee's involvement cannot be completely discounted as a contributing factor: (1) when a person suffers a bodily injury and immediately receives medical attention away from the scene, (2) when any vehicle involved incurs damage requiring it to be transported away from the scene by a tow truck or other vehicle, or (3) the mass transit vehicle involved is a rail car, trolley car, trolley bus, or vessel and is removed from revenue service due to the accident.

Employees to be tested include the vehicle operator and any other safety-sensitive employee not in the vehicle whose performance could have contributed to the accident. Both drug and alcohol tests must be administered as soon as possible, but no later than 8 hours after the accident for alcohol and 32 hours for drugs. The results of a blood, urine, or breath test conducted by Federal, state, or local officials having independent authority for the test

cannot be used to meet FTA requirements unless the employer is unable to perform a post-accident test within the required time period, the test conforms to the applicable Federal, state, or local testing requirements, and that the test results are obtained by the employer.

Reasonable suspicion testing refers to a drug and/or alcohol test that is ordered by a trained supervisor based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech, or body odor of a safety-sensitive employee.

Pre-employment testing refers to testing of candidates for a safety-sensitive position (including existing non-safety-sensitive employees as well as applicants for employment) and for employees who have not performed a safety-sensitive function for more than 90 consecutive calendar days, regardless of the reason, and were removed from the employer's random selection pool during that time. A negative pre-employment test for drugs is required by FTA as a condition for performing safety-sensitive duties under these circumstances. Pre-employment alcohol tests are not required but are permitted under Part 655 providing they are performed in accordance with the testing procedures in Part 40. The alcohol tests are included in the data presented in Chapter 3 because they are conducted per DOT standards and are required by many employers.

The Omnibus Testing Act required a negative pre-employment alcohol test, but FTA suspended the requirement on May 10, 1995, as the result of a U.S. Court of Appeals decision. FTA decided to allow but not require pre-employment alcohol testing in Part 655. All of the other eight DOT administrations with testing programs added this section to their rules.

Part 655 also eliminated the term "hire" in the pre-employment provision. Previously, employers were required to administer a drug test and receive a negative result before hiring an employee. FTA deleted the term to provide employers discretion to administer a pre-employment drug test anytime before an employee first performs a safety-sensitive function and before an employee returns to safety-sensitive duty after being removed from the random pool for an extended period. Part 655 also established a limit, 90 consecutive calendar days, on the amount of time an employee can be removed from the pool without a negative drug test before returning to work.

Return to duty testing refers to a drug and/or alcohol test that is required for a safety-sensitive employee who completes a course of treatment prescribed by a SAP after testing positive for drugs or alcohol or refusing to submit to a required test. A negative result for the type (drug or alcohol) of positive or refused test is required before the employee can be returned to duty. SAPs often require the employee to submit to both a drug and an alcohol test even if only one of the tests was at issue.

Follow-up testing refers to a drug and/or alcohol test that is required for an employee who is returned to safety-sensitive duty. The employee is subject to at least six unannounced tests for at least 12 months after returning to duty. The exact number and frequency of tests is prescribed by the SAP, who may order tests for up to 60 months after return to duty. SAPs often require the employee to submit to both a drug and an alcohol test even if only one of the tests was at issue. Follow-up testing is separate from, and in addition to, random testing.

Part 655 incorporates follow-up testing under return to duty testing (i.e., return to duty/follow-up testing) as one of five required FTA tests. It was previously listed separately as one of six required FTA tests.

2.4 Types of Drugs

Marijuana is derived from the hemp plant and comes in a variety of colors such as green, brown, and a gray mixture of leaves. THC or (delta-9-tetrahydrocannabinol) is the primary active chemical in marijuana. It is absorbed quickly into fatty tissues and stored for a long time. The potency and strength of the chemical causes people to use the drug for the mildly tranquilizing, mood and perception-altering effects it produces. The test for marijuana also includes its metabolites

Cocaine is an addictive substance that comes from coca leaves, or is made synthetically. It appears as a white powder that is snorted, ingested, injected, freebased (smoked), or applied directly to the nasal membrane or gums. Cocaine acts as a stimulant to the central nervous system. It gives the user a feeling of exhilaration. The chemicals in cocaine trick the brain into feeling it has experienced pleasure, when in fact it has not.

Phencyclidine (PCP), originally developed as an anesthetic, has adverse side effects that limit its medical use to a tranquilizer for large animals. In people, PCP acts as both a depressant and a hallucinogen, and sometimes as a stimulant. PCP can cause distorted bodily perceptions and a feeling of disassociation where the mind feels separated from the body. These effects can be very upsetting to some people, who may panic as a result.

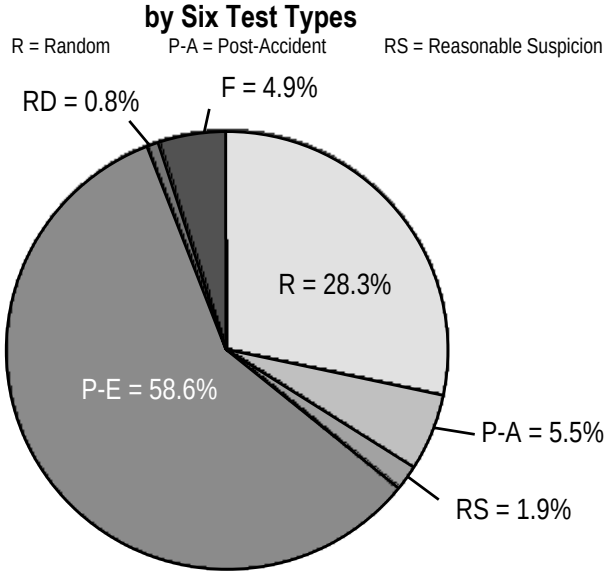
Opiates, also known as narcotic analgesics, include heroin, morphine, and codeine. They are derived from a sap taken from a seedpod of the plant, "papaver somniferum" (or poppy plant). General effects include sedation, slowed reflexes, raspy speech, sluggish movements, slowed breathing, cold skin, and vomiting. The synthetic form of opiates, known as "designer drug," is even more deadly and addictive.

Amphetamines include racemic, amphetamine, extroamphetamine, and methamphetamine. They are potent stimulants that may be swallowed, snorted, or injected. They induce exhilarating feelings of power, strength, energy, self-assertion, focus, and enhanced motivation. The need to sleep or eat is diminished. Amphetamines can induce a sense of aroused euphoria, which may last several hours. The body does not readily break down amphetamines. Thus, feelings are intensified and ephemeral. Subsequently, there is an intense feeling of mental depression and fatigue.

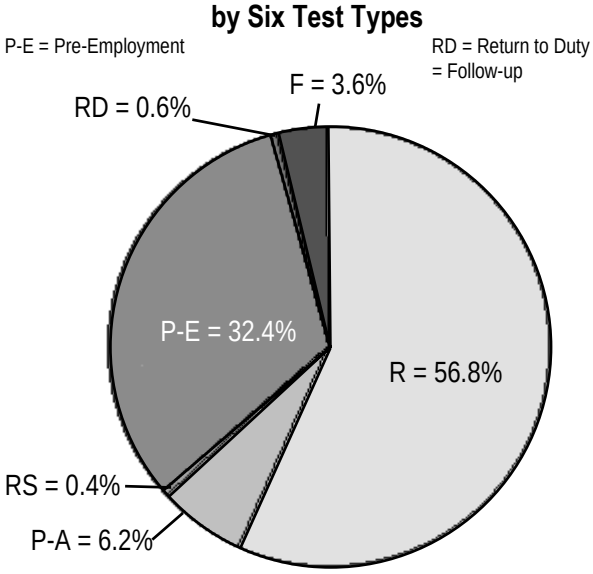
3. Drug and Alcohol Test Data

The following two charts compare the percentages of total verified drug positives and percentages of total drug specimens reported in 2001 for each of the six required test circumstances cited in Chapter 2.

Percentage of Verified Drug Positives by Six Test Types

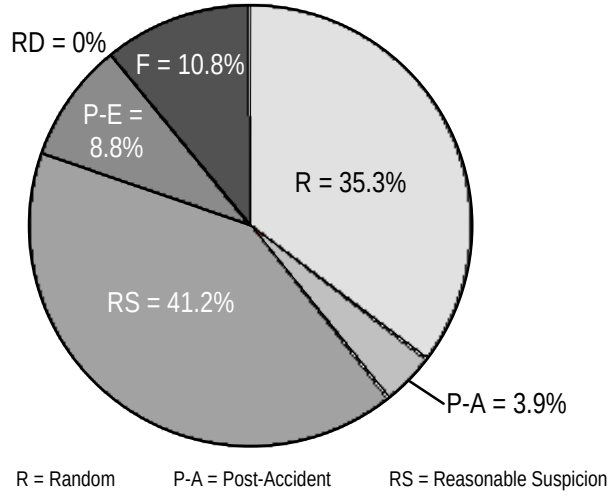


Percentage of Drug Specimens Collected by Six Test Types

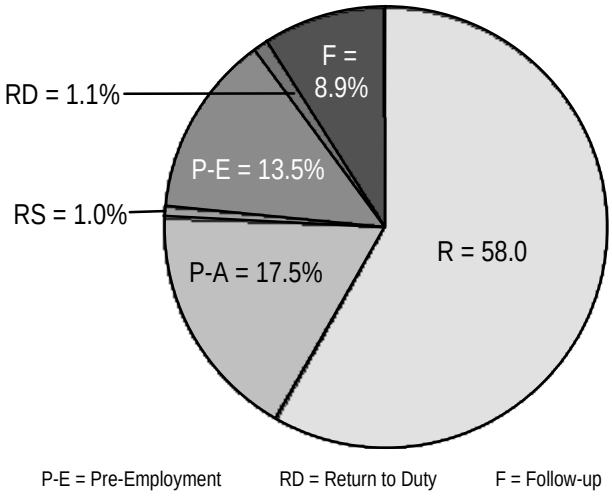


The following two charts compare the percentages of total confirmed alcohol positives and percentages of total alcohol screens reported in 2001 for each of the six required test circumstances cited in Chapter 2.

Percentage of Confirmed Alcohol Positives by Six Test Types

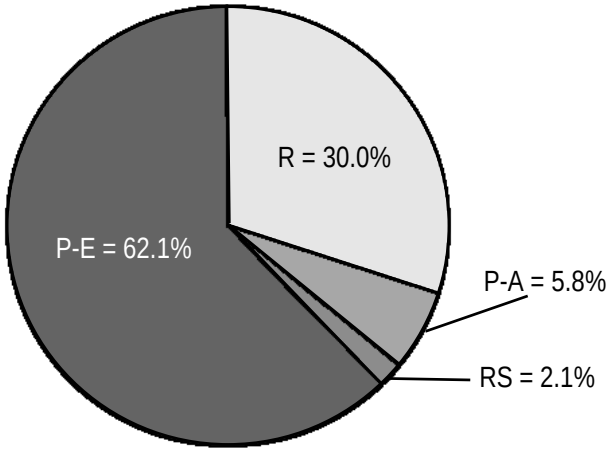


Percentage of Alcohol Screens Collected by Six Test Types

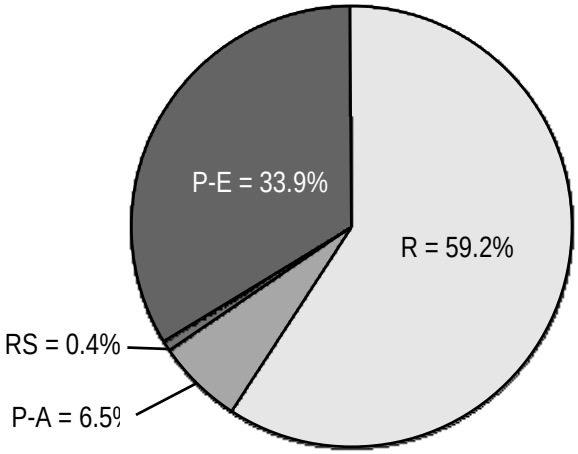


Because return to duty tests and follow-up tests represent a different segment of the test population—specimens produced by persons who have already been removed from duty for drug or alcohol violations and have completed a rehabilitation program—and not all employers offer rehabilitation, the data from those tests are presented separately (in Chapter 4) from data for the other four test types. Data from random, post-accident, reasonable suspicion, and pre-employment testing are presented in this chapter. The next two charts compare the percentages of total verified drug positives and percentages of total drug specimens reported in 2001 for each of those four test types. Those charts are followed by two charts that compare the percentages of total confirmed alcohol positives and percentages of total alcohol screens reported in 2001.

Percentage of Verified Drug Positives by Four Test Types

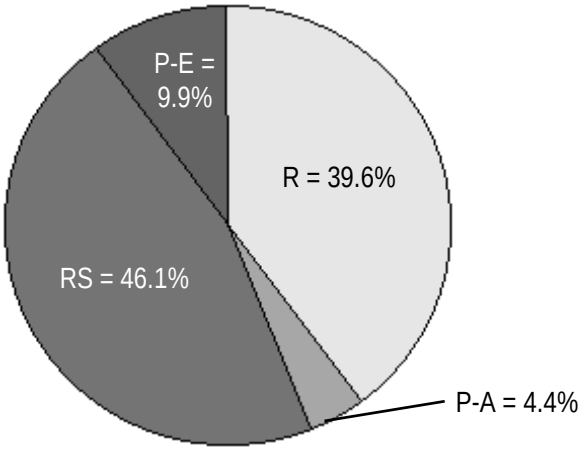


Percentage of Drug Specimens Collected by Four Test Types

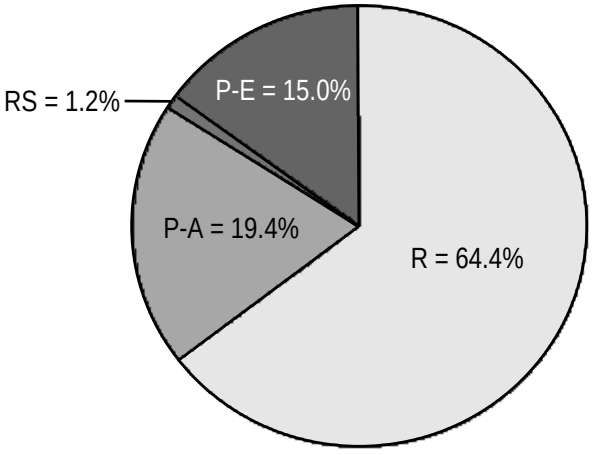


R = Random P-A = Post-Accident RS = Reasonable Suspicion P-E = Pre-Employment

Percentage of Confirmed Alcohol Positives by Four Test Types



Percentage of Alcohol Screens Collected by Four Test Types



R = Random P-A = Post-Accident RS = Reasonable Suspicion P-E = Pre-Employment

The results of the random, post-accident, reasonable suspicion, and pre-employment tests are sorted and presented by various criteria to enable the following comparisons:

- Drug and alcohol
- Test type
- Employer type (transit agencies and contractors)
- Employer size (large, small, and rural)
- Employee category
- Regional
- Drug type

As mentioned in Section 2.3, the results of random tests provide the best indication of the overall level of drug use and alcohol misuse, and they are used by FTA in determining minimum random testing rates for the following year. For this reason, employers were requested to report the number of refusals to take a random test, as well as the number of positive test results. Accordingly, violation rates are presented for random tests. In this report, the violation rate refers to the number of positives and refusals combined per person selected to take a random test:

Drug violation rate[1] *= (verified positives + refusals) ÷ (specimens collected + refusals)*

Alcohol violation rate = (confirmed positives[2] *+ refusals) ÷ (screens collected + refusals)*

Employers were not asked to report refusal data for post-accident, reasonable suspicion, and pre-employment tests. The results for those tests are presented as verified positives for drugs and confirmed positives for alcohol. The verified/confirmed positive rates for random tests are included in the comparisons of positive rates by test type.

Data in this chapter are presented in five sections:

3.1 Violation rates and supporting data for random drug and alcohol tests, subdivided by:
- Employer type
- Employer size
- FTA region

3.2 Data on non-fatal accidents, fatal accidents, and total fatalities that resulted in positive post-accident drug or alcohol tests, subdivided by:
- Employer type
- Employer size

[1] For clarity in presenting the test results, the terms "violation rate" and "positive rate" are used differently in this report than in Part 655. See the text box in Section 2.3 for a full explanation.

[2] A positive alcohol test is a specimen with a confirmed breath alcohol level of at least 0.04.

3.3 Verified/confirmed positive rates and supporting data for the four types of drug and alcohol tests, subdivided by:
- Employer type
- Employer size
- Employee category
- FTA region (data only for totals for the four test types combined)

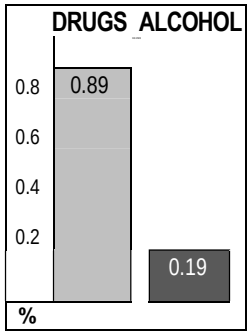
3.4 Verified positive rates and supporting data for the four types of drug tests by type of drug, subdivided by:
- Employer type
- Employer size
- Employee category

3.5 Non-positive alcohol violations:
- Alcohol specimens between 0.02 and 0.039 by test type, subdivided by employer type, employer size, employee category, and FTA region
- Non-test violations, subdivided by employer type and employer size

As mentioned in Chapter 1, not all subrecipients were requested to report their test data in 2001. The employers requested to report were chosen using a stratified random sampling technique. Three sample populations were developed, based on employer size—large, small, and rural.[3] In 2001, 406 large employers, 72 small employers, and 187 rural employers were asked to report. To make the sample data meaningful, the results are expressed as rates where possible, i.e., in Sections 3.1, 3.3, 3.4, and 3.5.1. The data on accidents that resulted in positive post-accident tests (in Section 3.2) and non-test alcohol violations (in Section 3.5.2) are normalized by each size category to represent the total number of employers. The actual number of instances reported is also presented to provide basis for the rate or normalization.

3.1 Random Test Violation[4] Data

The graph at right presents the violation rates for random drug and random alcohol tests. The accompanying table provides the statistical basis for the violation rates, and it includes the refusal rates. These data are subdivided by employer type and size and by FTA region later in this section. Refusal data were not reported by employee category.



Persons Selected for Random Testing and Violations[4]

	Drugs	Alcohol
*Persons Selected	77,842	26,478
Refusals + Positives	695	49
Positives	627	36
Refusals	68	13
Refusal Rate	0.087%	0.049%

*specimens collected + refusals for drugs screens collected + refusals for alcohol

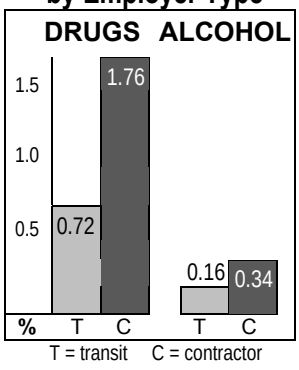
[3] The population that surrounds the transit agency determines the size of operation for each agency. Large, small, and rural organizations are categorized by a population of 200,000 or more, 50,000 to 200,000, and less than 50,000, respectively.

[4] "Violation" refers to the combined number of refusals and positives. See footnote 1, on page 3-3.

3.1.1 Random Test Violation Data by Employer Type and Size

The following three graphs present the random violation rates by employer type, by employer size, and by employer size and type, respectively. Each graph is accompanied by a table that provides the statistical basis for the violation rates. The tables also include the refusal rates.

Random Violation Rates by Employer Type

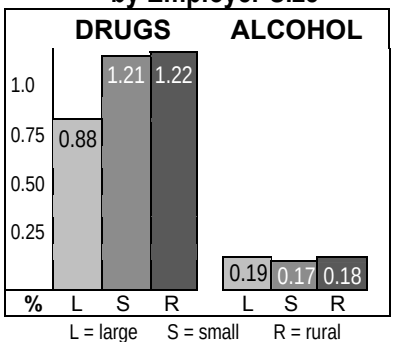


Persons Selected for Random Testing and Violations by Employer Type

	Drugs		Alcohol	
	Transit	Contractor	Transit	Contractor
*Persons Selected	65,043	12,799	22,367	4,111
Refusals + Positives	470	225	35	14
Positives	435	192	33	3
Refusals	35	33	2	11
Refusal Rate	0.054%	0.258%	0.009%	0.268%

*specimens collected + refusals for drugs
screens collected + refusals for alcohol

Random Violation Rates by Employer Size

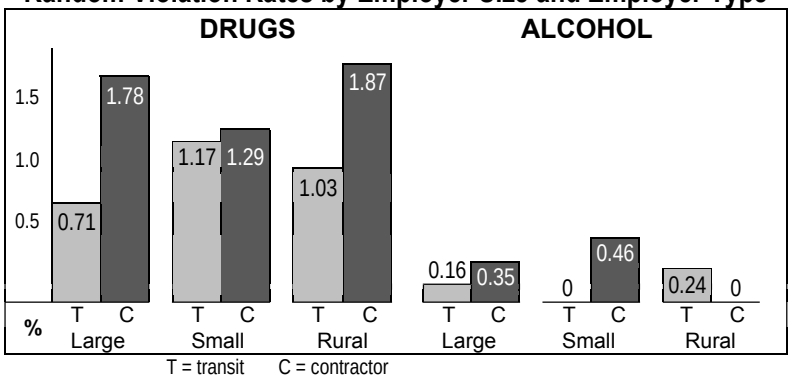


Persons Selected for Random Testing and Violations by Employer Size

	Drugs			Alcohol		
	Large	Small	Rural	Large	Small	Rural
*Persons Selected	74,144	1,811	1,887	25,335	584	558
Refusals + Positives	650	22	23	47	1	1
Positives	586	19	22	35	0	1
Refusals	64	3	1	12	1	0
Refusal Rate	0.086%	0.166%	0.053%	0.047%	0.171%	0

*specimens collected + refusals for drugs screens collected + refusals for alcohol

Random Violation Rates by Employer Size and Employer Type



Persons Selected for Random Testing and Violations by Employer Size and Employer Type

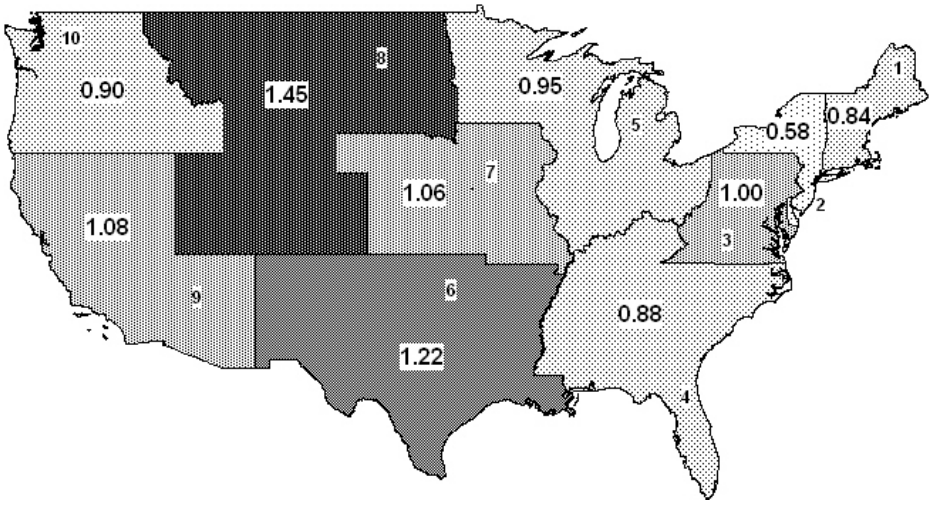
	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
*Persons Selected	62,472	11,672	1,112	699	1,459	428	21,575	3,760	368	217	424	134
Refusals + Positives	442	208	13	9	15	8	34	13	0	1	1	0
Positives	410	176	11	8	14	8	32	3	0	0	1	0
Refusals	32	32	2	1	1	0	2	10	0	1	0	0
Refusal Rate	0.051%	0.274%	0.180%	0.143%	0.069%	0	0.009%	0.266%	0	0.461%	0	0

*specimens collected + refusals for drugs screens collected + refusals for alcohol

3.1.2 Random Violation Rates by FTA Region

The following two maps show the random violation rates for drugs and for alcohol, respectively, for each of FTA's ten regions. The shading variations provide quick comparison. The exact rates are also included. The statistical basis for the violation rates is provided in the accompanying tables.

Drug Violation Rates by FTA Region

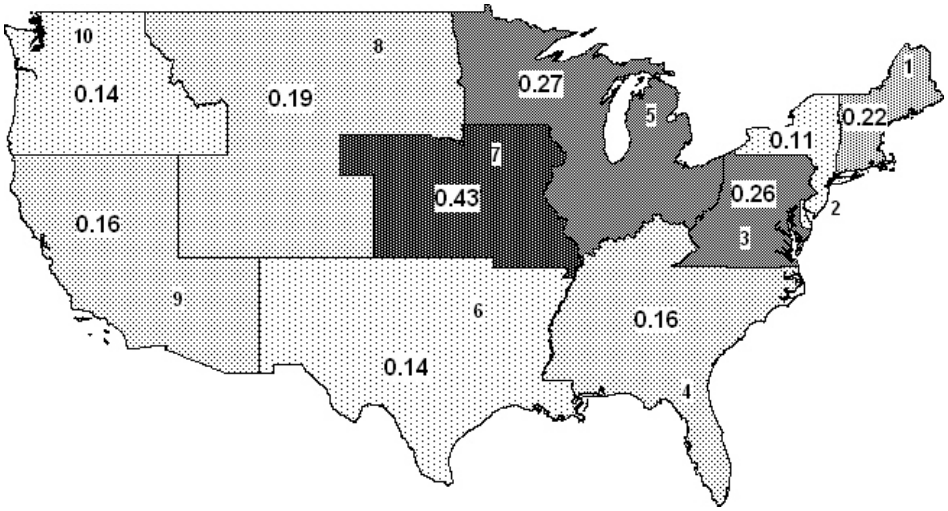


Persons Selected for Random Drug Testing and Violations by Region

Region	*Persons Selected	Verified Positives	Refusals
1	3,836	26	6
2	22,406	111	18
3	10,234	89	14
4	5,487	43	5
5	12,201	110	6
6	5,467	59	8
7	1,796	18	1
8	2,549	35	2
9	10,876	111	6
10	2,990	25	2

*specimens collected + refusals

Random Alcohol Violation Rates by FTA Region



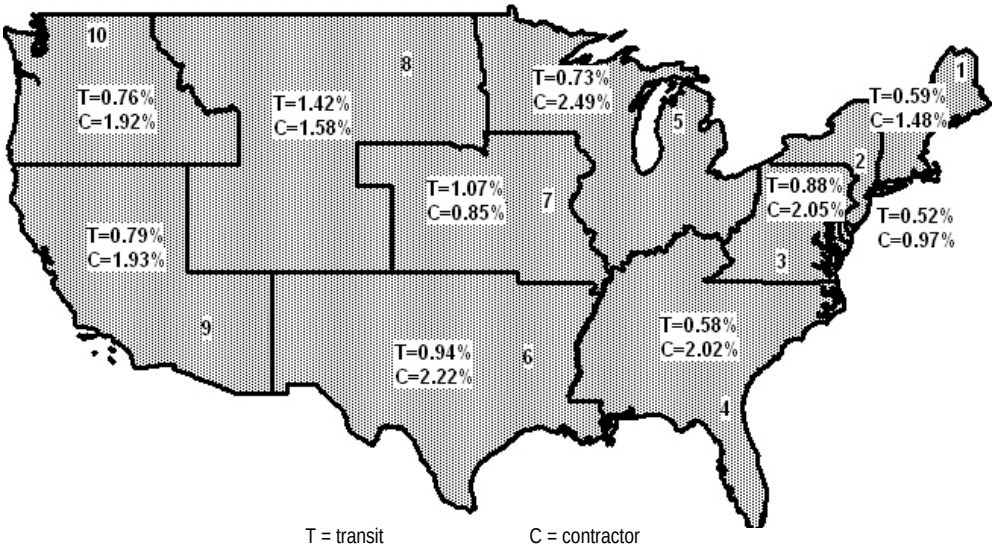
Persons Selected for Random Alcohol Testing and Violations by Region

Region	*Persons Selected	Confirmed Positives	Refusals
1	893	0	2
2	7,120	7	1
3	4,997	8	5
4	3,137	5	0
5	3,291	7	2
6	2,917	2	2
7	460	2	0
8	526	0	1
9	2,425	4	0
10	712	1	0

*screens collected + refusals

These data are subdivided by employer type and by employer size on the following pages. The drug violation rates by employer type, the drug violation rates for large employers, and the alcohol violation rates for large employers are displayed on maps. The statistical basis for the violation rates is provided in the accompanying tables. Because of the small sizes of their populations, the other rates appear in tables, along with the statistical basis for those rates.

Random Drug Violation Rates by FTA Region and Employer Type



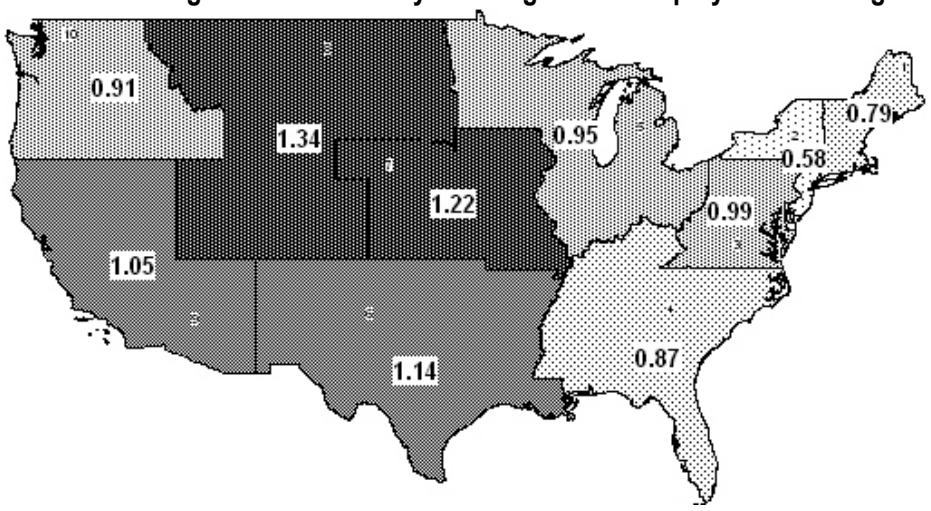
Persons Selected for Random Drug Testing and Violations by FTA Region and Employer Type

	Transit			Contractor		
Region	Persons Selected	Verified Positives	Refusals	Persons Selected	Verified Positives	Refusals
1	2,753	15	1	1,083	11	5
2	19,518	90	11	2,888	21	7
3	9,101	75	5	1,133	14	9
4	4,346	23	2	1,141	20	3
5	10,669	75	3	1,532	35	3
6	4,248	33	7	1,219	26	1
7	1,680	17	1	116	1	0
8	1,977	28	0	572	7	2
9	8,127	59	5	2,749	52	1
10	2,624	20	0	366	5	2

Random Alcohol Violation Data by FTA Region and Employer Type

	Transit				Contractor			
Region	Persons Selected	Confirmed Positives	Refusals	Violation Rate	Persons Selected	Confirmed Positives	Refusals	Violation Rate
1	580	0	0	0	313	0	2	0.64%
2	6,147	6	0	0.10%	973	1	1	0.21%
3	4,394	8	0	0.18%	603	0	5	0.83%
4	2,567	5	0	0.19%	570	0	0	0
5	2,819	7	0	0.25%	472	0	2	0.42%
6	2,628	2	2	0.15%	289	0	0	0
7	444	2	0	0.45%	16	0	0	0
8	389	0	0	0	137	0	1	0.73%
9	1,774	2	0	0.11%	651	2	0	0.31%
10	625	1	0	0.16%	87	0	0	0

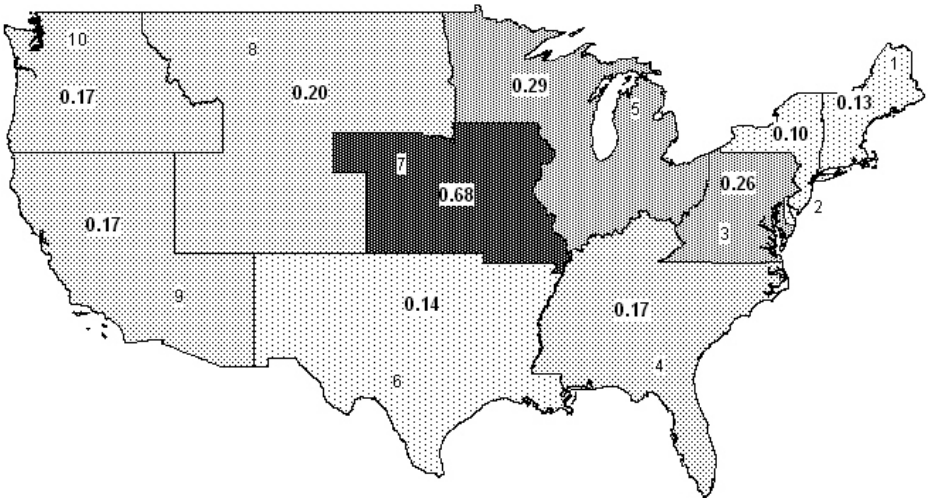
Random Drug Violation Rates by FTA Region and Employer Size—Large



Persons Selected for Random Drug Testing and Violations by Region and Large Employer

Region	Persons Selected	Verified Positives	Refusals
1	3,547	23	5
2	21,963	110	18
3	9,984	85	14
4	4,959	38	5
5	11,589	104	6
6	5,257	55	5
7	1,146	13	1
8	2,391	30	2
9	10,570	105	6
10	2,738	23	2

Random Alcohol Violation Rates by FTA Region and Employer Size—Large



Persons Selected for Random Alcohol Testing and Violations by Region and Large Employer

Region	Persons Selected	Confirmed Positives	Refusals
1	771	0	1
2	6,982	6	1
3	4,921	8	5
4	2,948	5	0
5	3,126	7	2
6	2,860	2	2
7	294	2	0
8	497	0	1
9	2,345	4	0
10	591	1	0

Random Violation Data by FTA Region and Employer Size—Small and Rural

	Drugs								Alcohol							
	Small				Rural				Small				Rural			
Region	PS	VP	R	Rate	PS	VP	R	Rate	PS	CP	R	Rate	PS	CP	R	Rate
1	265	2	1	1.13%	24	1	0	4.17%	115	0	1	0.87%	7	0	0	0
2	312	1	0	0.32%	131	0	0	0	93	0	0	0	45	1	0	2.22%
3	173	3	0	1.73%	77	1	0	0	50	0	0	0	26	0	0	0
4	169	1	0	0.59%	359	4	0	0	55	0	0	0	134	0	0	0
5	402	3	0	0.75%	210	3	0	0	100	0	0	0	65	0	0	0
6	129	3	2	3.88%	81	1	1	2.47%	29	0	0	0	28	0	0	0
7	79	1	0	1.27%	571	4	0	0	18	0	0	0	148	0	0	0
8	0	0	0	0	158	5	0	3.16%	0	0	0	0	29	0	0	0
9	72	4	0	5.56%	234	2	0	0.85%	17	0	0	0	63	0	0	0
10	210	1	0	0.48%	42	1	0	2.38%	108	0	0	0	13	0	0	0

PS = persons selected VP = verified positives R = refusals Rate = violation rate CP = confirmed positives

3.2 Accident and Fatality Data Associated with Positive Post-Accident Tests

Data are presented for the number of accidents in which a transit agency employee or contractor tested positive in an FTA post-accident test. Data are presented for both drug tests and alcohol tests, though it should be noted that one person may test positive for both drugs and alcohol and that most employers test the employee for both drugs and alcohol. Thus, the numbers for drugs and alcohol cannot be added to obtain the total number of persons who tested positive. Data were not reported on the total number of persons testing positive in a post-accident test or for persons testing positive for both drugs and alcohol.

Because these accident and fatality numbers cannot be expressed as a rate, the number of instances reported have been normalized for the total number of employers by each size category. The first table below presents these statistics for the number of non-fatal accidents, fatal accidents, and total fatalities when a positive drug test resulted and when a positive alcohol test resulted. The next two tables subdivide those data by employer type and employer size, respectively. The data reported cannot be normalized by FTA region. The actual number of instances reported by region are presented in Appendix C; those numbers are also subdivided by employer type and by employer size. These accident and fatality numbers were not reported by employee category.

Accidents and Fatalities Resulting in Post-Accident Positives

	Drugs		Alcohol	
	Normalized	Reported	Normalized	Reported
Non-Fatal Accidents	277	120	17	8
Fatal Accidents	0	0	0	0
Total Fatalities	0	0	0	0

Accidents and Fatalities Resulting in Post-Accident Positives by Employer Type

	Drugs				Alcohol			
	Normalized		Reported		Normalized		Reported	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
Non-Fatal Accidents	150	127	65	55	11	6	5	3
Fatal Accidents	0	0	0	0	0	0	0	0
Total Fatalities	0	0	0	0	0	0	0	0

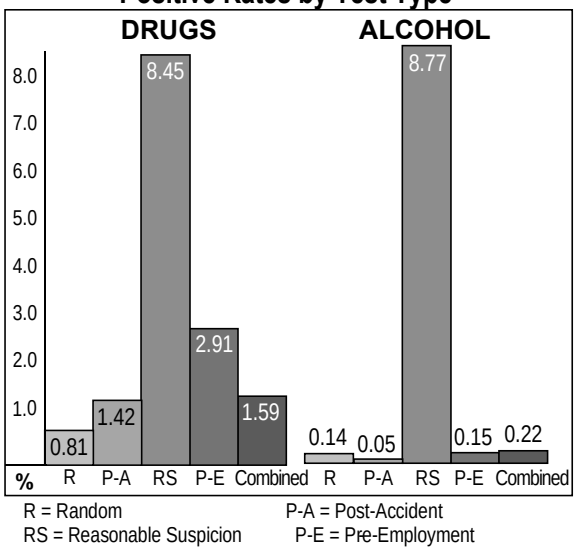
Accidents and Fatalities Resulting in Post-Accident Positives by Employer Size

	Drugs						Alcohol					
	Normalized			Reported			Normalized			Reported		
	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural
Non-Fatal Accidents	246	16	15	115	3	2	17	0	0	8	0	0
Fatal Accidents	0	0	0	0	0	0	0	0	0	0	0	0
Total Fatalities	0	0	0	0	0	0	0	0	0	0	0	0

3.3 Data for Four Test Types

The positive rates for each of the four types (random, post-accident, reasonable suspicion, and pre-employment) and for the four types combined, for both drug tests and alcohol tests, are presented in the following graph. The accompanying table provides the statistical basis for the positive rates. These data are subdivided by employer type and size, by FTA region, and by employee category later in this section.

Positive Rates by Test Type



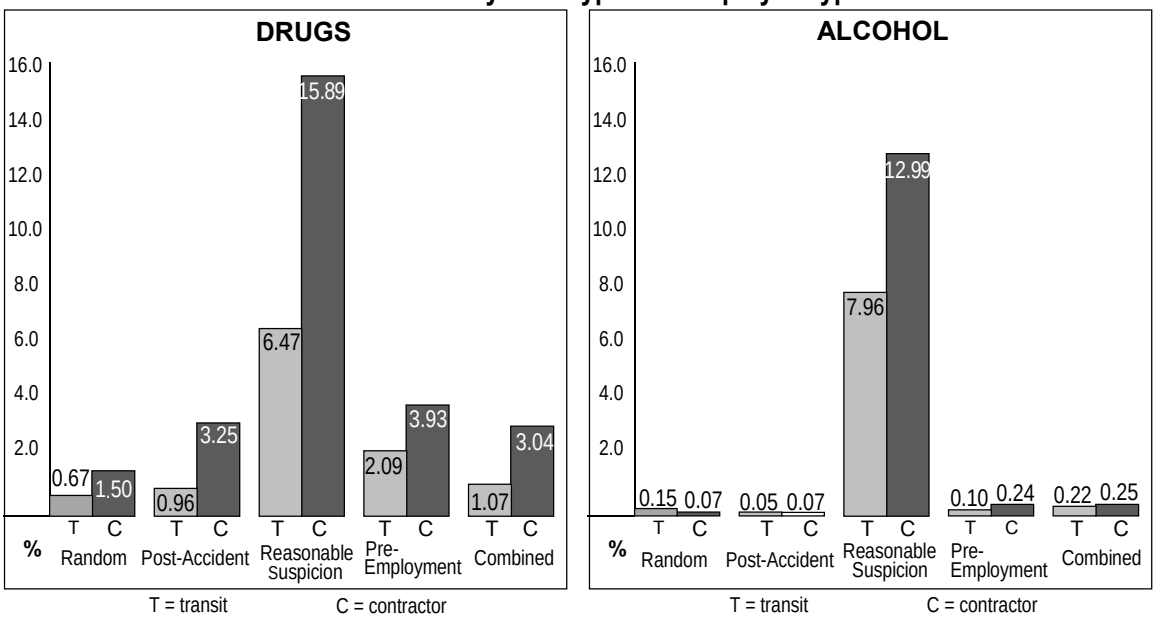
Specimens/Screens Collected and Positives by Test Type

	Drugs		Alcohol	
	Specimens Collected	Verified Positives	Screens	Confirmed Positives
Random	77,774	627	26,465	36
Post-Accident	8,507	121	7,970	4
Reasonable Suspicion	509	43	479	42
Pre-Employment	44,462	1,296	6,162	9
Total	131,252	2,087	41,076	91

3.3.1 Data for Four Test Types by Employer Type and Size

The data above are subdivided by employer type, by employer size, and by employer size and type, respectively, in this section. The rates for each of the three data sets are shown in a separate pair of graphs. Each graph pair is followed by a table that provides the statistical basis for the rates.

Positive Rates by Test Type and Employer Type

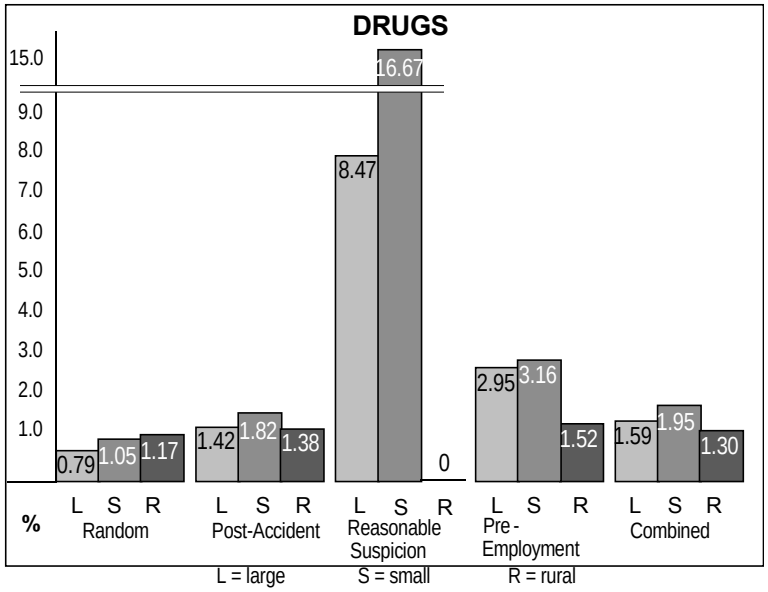


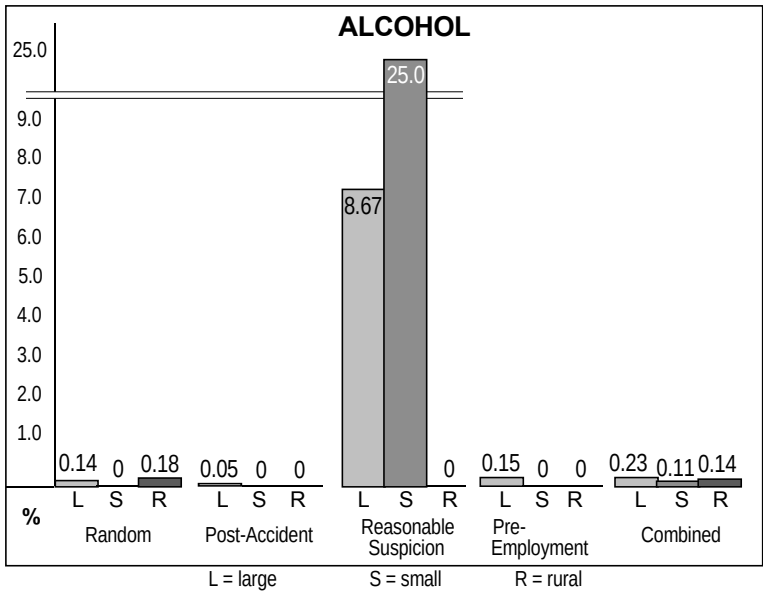
Specimens/Screens Collected and Positives by Test Type and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Random	65,008	435	12,766	192	22,365	33	4,100	3
Post-Accident	6,782	65	1,725	56	6,607	3	1,363	1
Reasonable Suspicion	402	26	107	17	402	32	77	10
Pre-Employment	24,444	510	20,018	786	4,095	4	2,067	5
Total	96,636	1,036	34,616	1,051	33,469	72	7,607	19

One of the rates in each of the next two graphs is presented on a separate scale because its sample size is too small to be representative of its population.

Positive Rates by Test Type and Employer Size



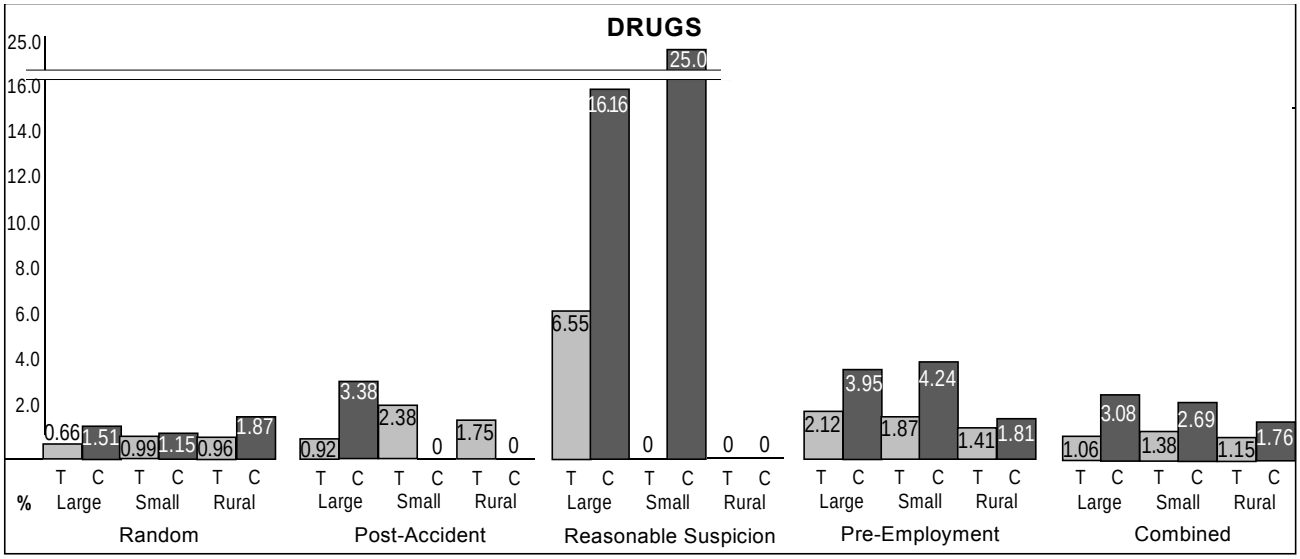


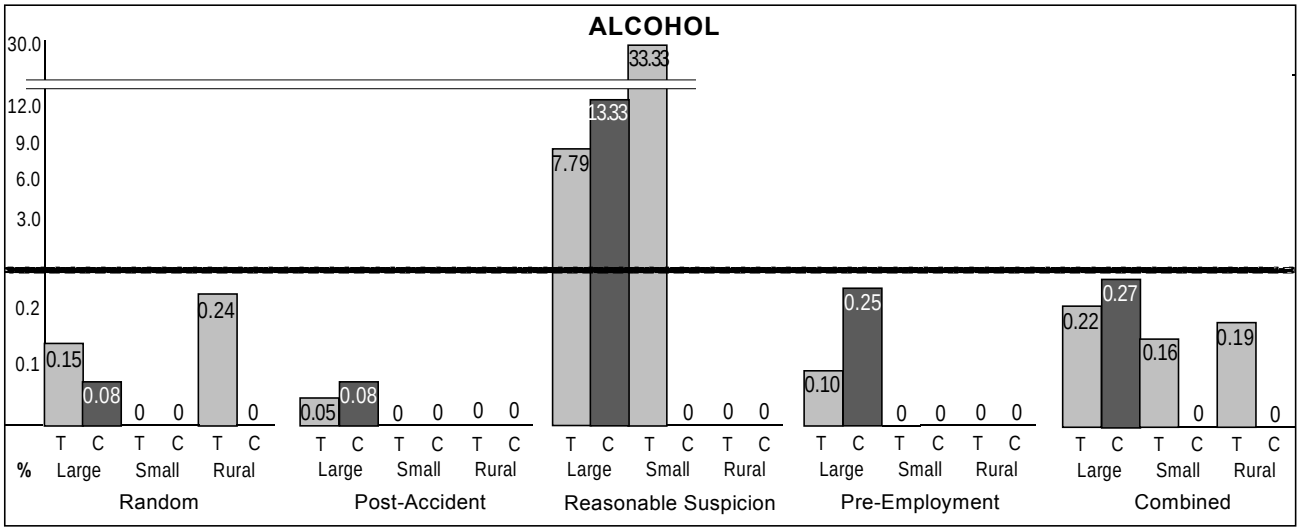
Specimens/Screens Collected and Positives by Test Type and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Random	74,080	586	1,808	19	1,886	22	25,323	35	584	0	558	1
Post-Accident	8,197	116	165	3	145	2	7,733	4	141	0	96	0
Reasonable Suspicion	496	42	6	1	7	0	473	41	4	1	2	0
Pre-Employment	41,929	1,236	1,348	42	1,185	18	5,921	9	207	0	34	0
Total	124,702	1,980	3,327	65	3,223	42	39,450	89	936	1	690	1

One of the rates in each of the next two graphs is presented on a separate scale because its sample size is too small to be representative of its population. Due to the large number of alcohol rates below 0.3 percent, the space below "0.3" in the second graph has been expanded under the divider line to allow greater clarity.

Positive Rates by Test Type, Employer Size, and Employer Type





T = transit C = Contractor

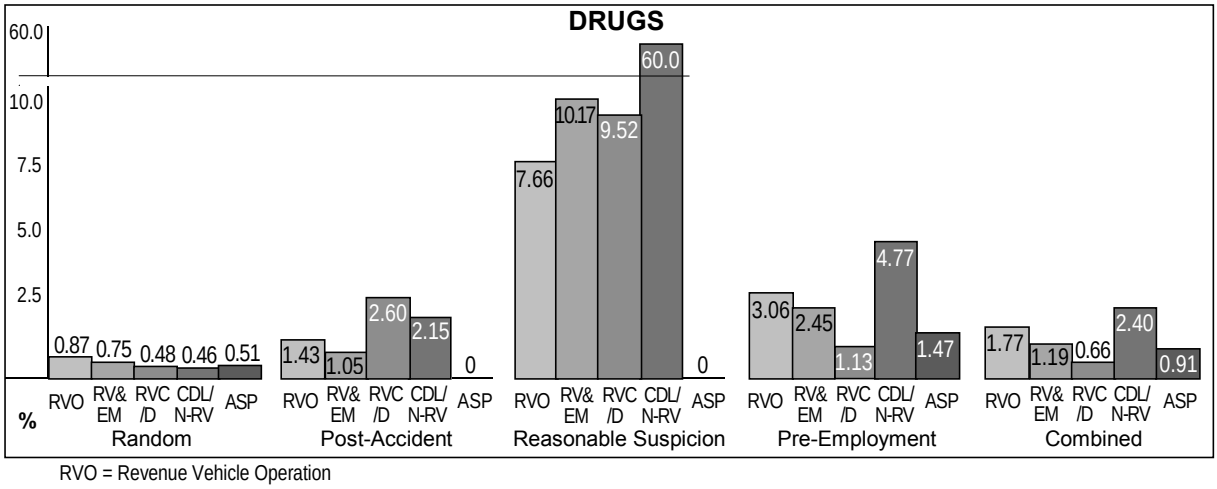
Specimens/Screens Collected and Positives by Test Type, Employer Size, and Employer Type

	Drugs											
	Large				Small				Rural			
	Transit		Contractor		Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives
Random	62,440	410	11,640	176	1,110	11	698	8	1,458	14	428	8
Post-Accident	6,542	60	1,655	56	126	3	39	0	114	2	31	0
Reasonable Suspicion	397	26	99	16	2	0	4	1	3	0	4	0
Pre-Employment	22,950	486	18,979	750	641	12	707	30	853	12	332	6
Total	92,329	982	32,373	998	1,879	26	1,448	39	2,428	28	795	14
	Alcohol											
	Large				Small				Rural			
	Transit		Contractor		Transit		Contractor		Transit		Contractor	
	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Random	21,573	32	3,750	3	368	0	216	0	424	1	134	0
Post-Accident	6,427	3	1,306	1	111	0	30	0	69	0	27	0
Reasonable Suspicion	398	31	75	10	3	1	1	0	1	0	1	0
Pre-Employment	3,930	4	1,991	5	131	0	76	0	34	0	0	0
Total	32,328	70	7,122	19	613	1	323	0	528	1	162	0

3.3.2 Data for Four Test Types by Employee Category

The next two graphs show the positive rates for each test type, as well as the rates for all four types combined, by employee category for drug tests and for alcohol tests, respectively. One of the drug rates is presented on a separate scale because its sample size is too small to be considered representative of its population. The table following the graphs provides the statistical basis for the positive rates. These data are further subdivided by employer type and by employer size on the pages that follow.

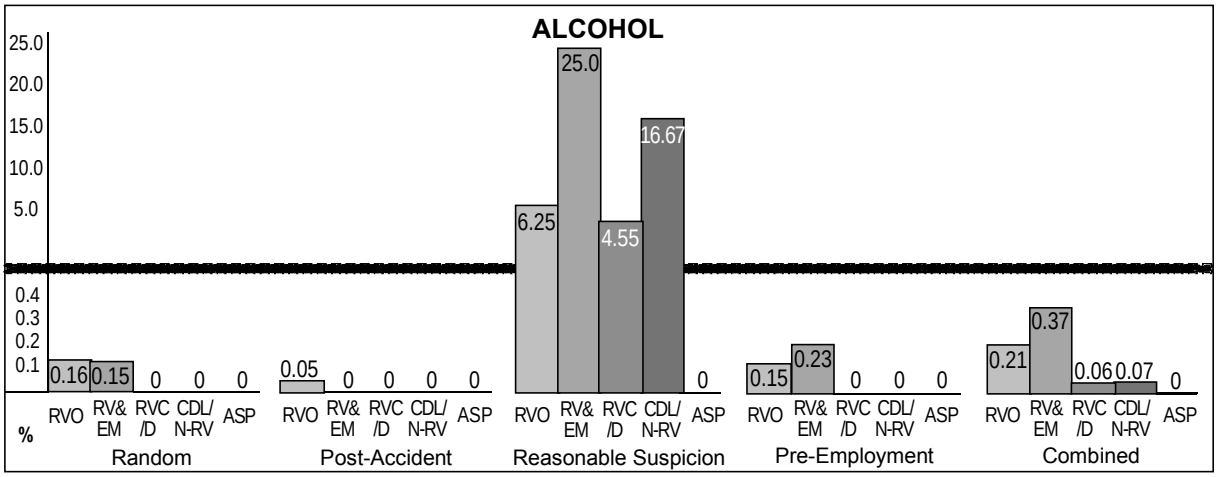
Positive Rates by Test Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Because of the large number of alcohol rates below 0.4 percent, the space below "0.4" has been expanded under the divider line to allow greater clarity.

Positive Rates by Test Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Specimens/Screens Collected and Positives by Test Type and Employee Category

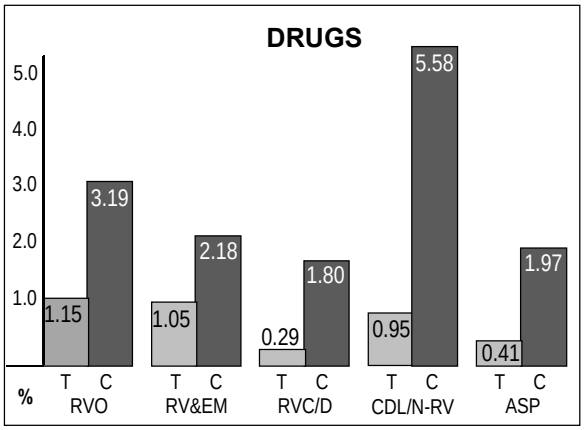
	DRUGS									
	Revenue Vehicle Operation		Revenue Vehicle and Equipment Maintenance		Revenue Vehicle Control/Dispatching		CDL/Non-Revenue Vehicle		Armed Security Personnel	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives
Random	52,323	456	17,757	134	4,400	21	1,732	8	1,562	8
Post-Accident	7,896	113	381	4	77	2	93	2	60	0
Reasonable Suspicion	418	32	59	6	21	2	5	3	6	0
Pre-Employment	36,220	1,110	5,666	139	974	11	377	18	1,225	18
Total	96,857	1,711	23,863	283	5,472	36	2,207	31	2,853	26
	ALCOHOL									
	Revenue Vehicle Operation		Revenue Vehicle and Equipment Maintenance		Revenue Vehicle Control/Dispatching		CDL/Non-Revenue Vehicle		Armed Security Personnel	
	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Random	17,342	27	5,920	9	1,339	0	1,162	0	702	0
Post-Accident	7,389	4	364	0	73	0	84	0	60	0
Reasonable Suspicion	384	24	64	16	22	1	6	1	3	0
Pre-Employment	4,794	7	859	2	137	0	83	0	289	0
Total	29,909	62	7,207	27	1,571	1	1,335	1	1,054	0

3.3.2.1 Data for Four Test Types by Employee Category and Employer Type

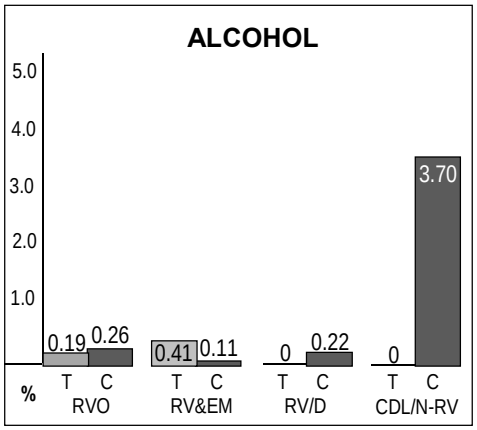
The following series of graphs and tables subdivide the preceding data by employer type. Two graphs, one for drugs and one for alcohol, are presented for the four test types combined and for each of the test types. They show the positive rates by employer type for each employee category. Each pair of graphs is accompanied by a table that provides the statistical basis for the rates.

Note: The graphs subdivided by employer type do not contain columns for employee categories that show a positive rate of "0" in the previous graphs.

Positive Rates for Four Test Types Combined by Employee Category and Employer Type



T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel



T = transit C = contractor
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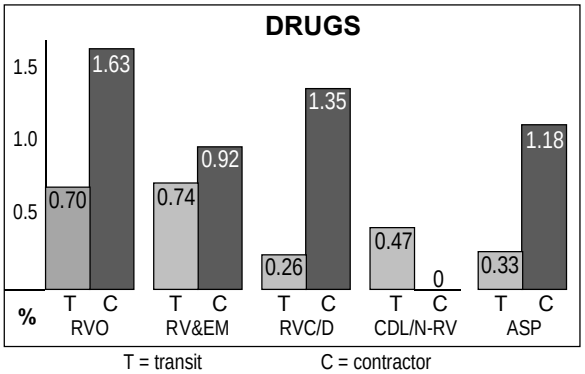
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle

Specimens/Screens Collected and Positives for Four Test Types Combined by Employee Category and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	67,640	778	29,217	933	23,813	46	6,096	16
Revenue Vehicle & Equipment Maintenance	20,925	219	2,938	64	6,332	26	875	1
Revenue Vehicle Control/Dispatching	4,142	12	1,330	24	1,123	0	448	1
CDL/Non-Revenue Vehicle	1,992	19	215	12	1,308	0	27	1
Armed Security Personnel	1,937	8	916	18	893	0	161	0

Random Positive Rates by Employee Category and Employer Type



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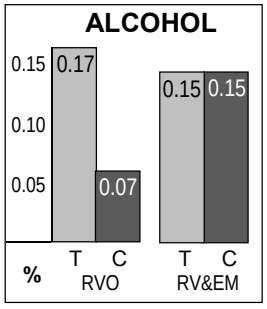


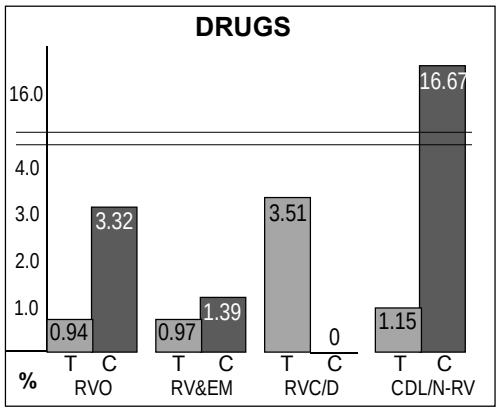
T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance

Random Specimens/Screens Collected and Positives by Employee Category and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	42,565	296	9,758	160	14,382	25	2,960	2
Revenue Vehicle & Equipment Maintenance	16,022	118	1,735	16	5,237	8	683	1
Revenue Vehicle Control/Dispatching	3,510	9	890	12	1,015	0	324	0
CDL/Non-Revenue Vehicle	1,687	8	45	0	1,146	0	16	0
Armed Security Personnel	1,224	4	338	4	585	0	117	0

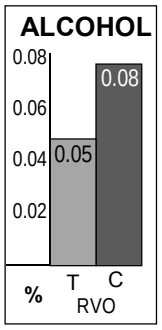
Some of the post-accident rates and reasonable suspicion rates (in the next two pairs of graphs) are presented on a separate scale from the other rates because their sample sizes are too small to be considered representative of their populations.

Post-Accident Positive Rates by Employee Category and Employer Type



T = transit C = contractor

RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle



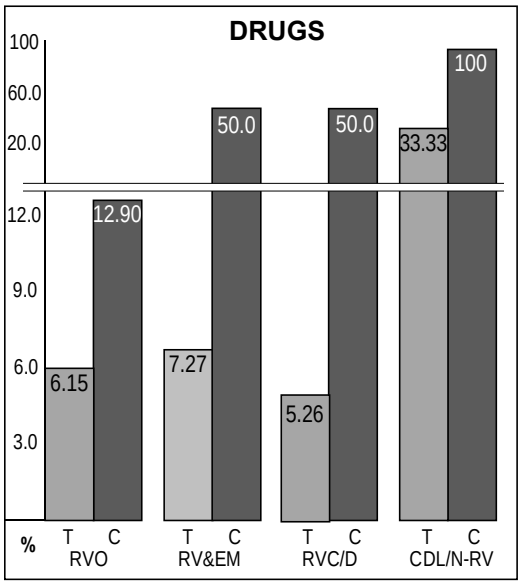
T = transit C = contractor

RVO = Revenue Vehicle Operation

Post-Accident Specimens/Screens Collected and Positives by Employee Category and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	6,269	59	1,627	54	6,110	3	1,279	1
Revenue Vehicle & Equipment Maintenance	309	3	72	1	300	0	64	0
Revenue Vehicle Control/Dispatching	57	2	20	0	56	0	17	0
CDL/Non-Revenue Vehicle	87	1	6	1	81	0	3	0
Armed Security Personnel	60	0	0	0	60	0	0	0

Reasonable Suspicion Positive Rates by Employee Category and Employer Type



T = transit C = contractor
RVO = Revenue Vehicle Operation
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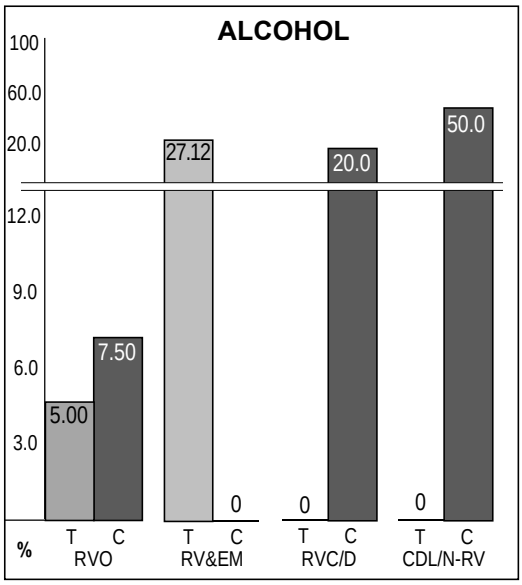
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle

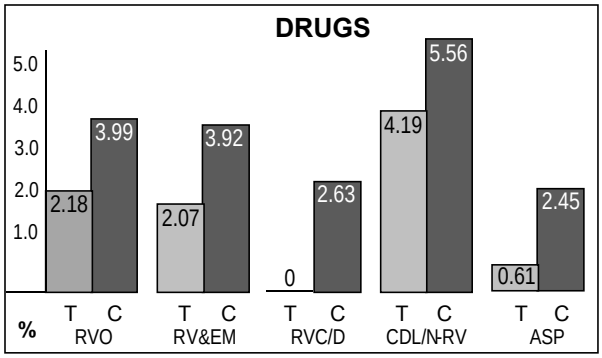


T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle

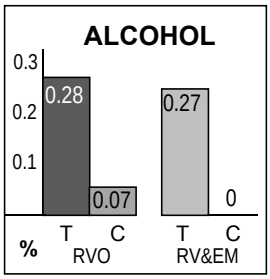
Reasonable Suspicion Specimens/Screens Collected and Positives by Employee Category and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	325	20	93	12	320	16	64	8
Revenue Vehicle & Equipment Maintenance	55	4	4	2	59	16	5	0
Revenue Vehicle Control/Dispatching	19	1	2	1	17	0	5	1
CDL/Non-Revenue Vehicle	3	1	2	2	4	0	2	1
Armed Security Personnel	0	0	6	0	2	0	1	0

Pre-Employment Positive Rates by Employee Category and Employer Type



T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP=Armed Security Personnel



T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance

Pre-Employment Specimens/Screens Collected and Positives by Employee Category and Employer Type

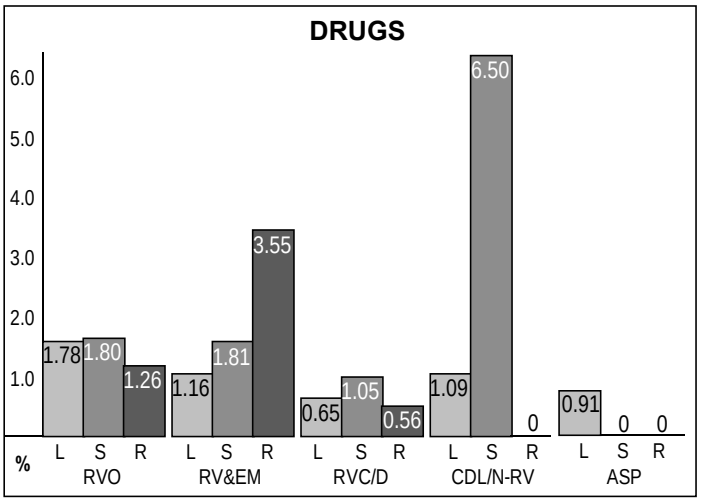
	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	18,481	403	17,739	707	3,001	2	1,793	5
Revenue Vehicle & Equipment Maintenance	4,539	94	1,127	45	736	2	123	0
Revenue Vehicle Control/Dispatching	556	0	418	11	35	0	102	0
CDL/Non-Revenue Vehicle	215	9	162	9	77	0	6	0
Armed Security Personnel	653	4	572	14	246	0	43	0

3.3.2.2 Data for Four Test Types by Employee Category and Employer Size

The following series of graphs and tables subdivide the test type/employee category data by employer size. Two graphs, one for drugs and one for alcohol, are presented for the four test types combined and for each of the test types. The graphs show the positive rates by employer type for each employee category. Each pair of graphs is accompanied by a table that provides the statistical basis for the rates.

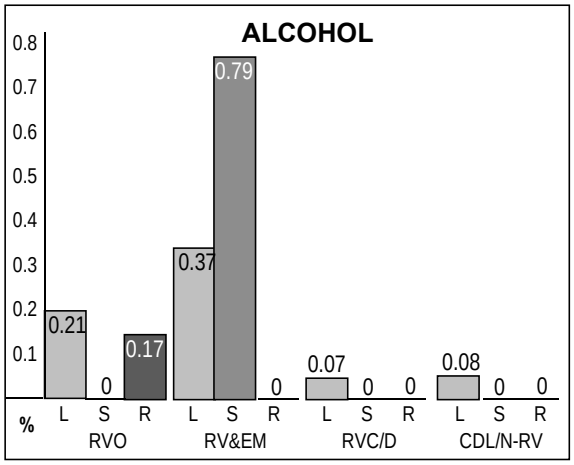
Note: The graphs subdivided by employer size do not contain columns for employee categories that show a positive rate of "0" in the test type/employee category graphs.

Positive Rates for Four Test Types Combined by Employee Category and Employer Size



L = large S = small R = rural

RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel



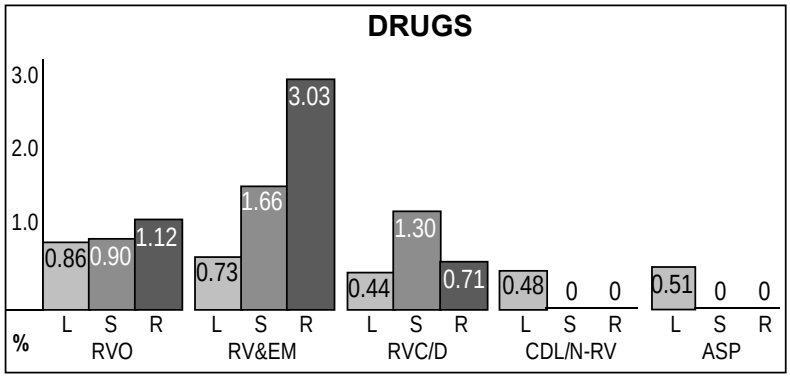
L = large S = small R = rural

RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle

Specimens/Screens Collected and Positives for Four Test Types Combined by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	91,448	1,629	2,558	46	2,851	36	28,668	61	748	0	583	1
Revenue Vehicle and Equipment Maintenance	23,281	270	441	8	141	5	7,053	26	127	1	27	0
Revenue Vehicle Control/Dispatching	5,102	33	191	2	179	1	1,450	1	58	0	63	0
CDL/Non-Revenue Vehicle	2,018	22	137	9	52	0	1,315	1	3	0	17	0
Armed Security Personnel	2,853	26	0	0	0	0	1,054	0	0	0	0	0

Random Positive Rates by Employee Category and Employer Size



L = large S = small R = rural

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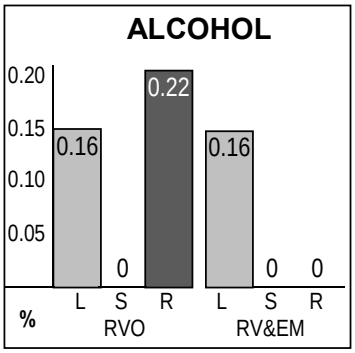
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel



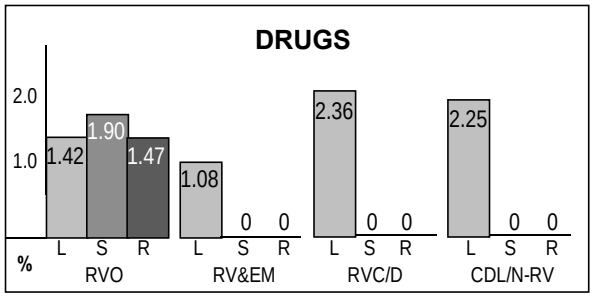
L = large S = small R = rural

RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance

Random Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	49,382	426	1,336	12	1,605	18	16,452	26	433	0	457	1
Revenue Vehicle and Equipment Maintenance	17,356	126	302	5	99	3	5,799	9	96	0	25	0
Revenue Vehicle Control/Dispatching	4,106	18	154	2	140	1	1,227	0	52	0	60	0
CDL/Non-Revenue Vehicle	1,674	8	16	0	42	0	1,143	0	3	0	16	0
Armed Security Personnel	1,562	8	0	0	0	0	702	0	0	0	0	0

Post-Accident Positive Rates by Employee Category and Employer Size



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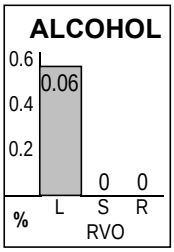
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle



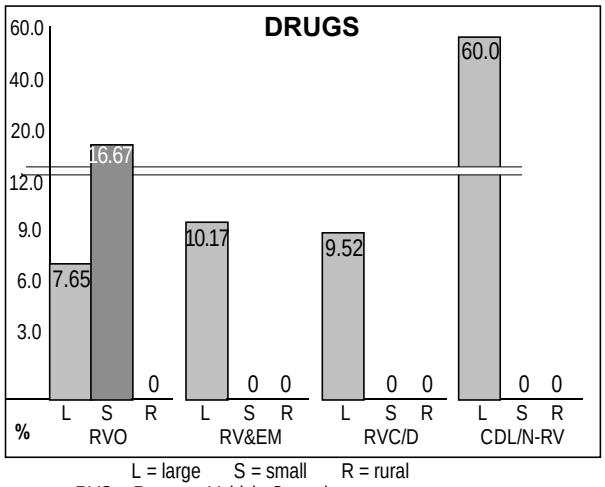
L = large
S = small
R = rural
RVO = Revenue Vehicle Operation

Post-Accident Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	7,602	108	158	3	136	2	7,159	4	137	0	93	0
Revenue Vehicle and Equipment Maintenance	370	4	5	0	6	0	359	0	3	0	2	0
Revenue Vehicle Control/Dispatching	76	2	1	0	0	0	72	0	1	0	0	0
CDL/Non-Revenue Vehicle	89	2	1	0	3	0	83	0	0	0	1	0
Armed Security Personnel	60	0	0	0	0	0	60	0	0	0	0	0

Three of the rates in the following pair of graphs are presented on a separate scale from the other rates because their sample sizes are too small to be considered representative of their populations.

Reasonable Suspicion Positive Rates by Employee Category and Employer Size



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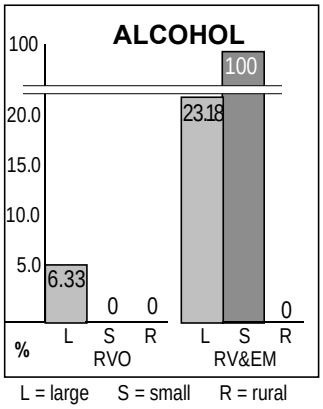
CDL/N-RV = CDL/Non-Revenue Vehicle

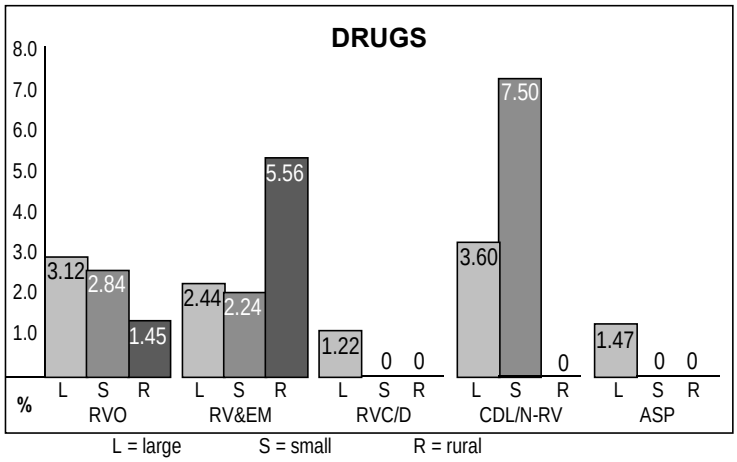


L = large S = small R = rural
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance

Reasonable Suspicion Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	405	31	6	1	7	0	379	24	3	0	2	0
Revenue Vehicle and Equipment Maintenance	59	6	0	0	0	0	63	15	1	1	0	0
Revenue Vehicle Control/Dispatching	21	2	0	0	0	0	22	1	0	0	0	0
CDL/Non-Revenue Vehicle	5	3	0	0	0	0	6	1	0	0	0	0
Armed Security Personnel	6	0	0	0	0	0	3	0	0	0	0	0

Pre-Employment Positive Rates by Employee Category and Employer Size



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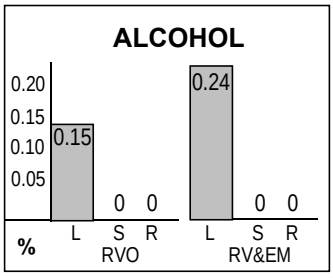
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel



L = large S = small R = rural
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance

Pre-Employment Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	34,059	1,064	1,058	30	1,103	16	4,588	7	175	0	31	0
Revenue Vehicle and Equipment Maintenance	5,496	134	134	3	36	2	832	2	27	0	0	0
Revenue Vehicle Control/Dispatching	899	11	36	0	39	0	129	0	5	0	3	0
CDL/Non-Revenue Vehicle	250	9	120	9	7	0	83	0	0	0	0	0
Armed Security Personnel	1,225	18	0	0	0	0	289	0	0	0	0	0

3.3.3 Data for Four Test Types by FTA Region

The following two maps show the positive rates for all four test types combined for drugs and for alcohol for each of FTA's ten regions. The shading variations provide quick comparison. The exact rates are also included. The statistical basis for those rates is provided in the accompanying tables.

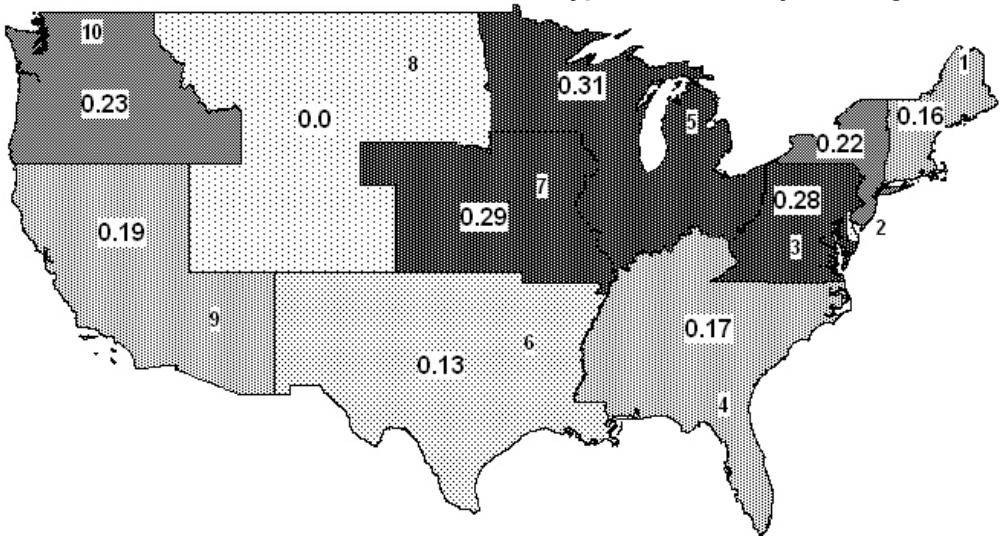
Positive Drug Test Rates for Four Test Types Combined by FTA Region

Region 1: 1.33%
Region 2: 1.14%
Region 3: 1.77%
Region 4: 1.32%
Region 5: 1.73%
Region 6: 2.16%
Region 7: 1.33%
Region 8: 2.31%
Region 9: 1.97%
Region 10: 1.08%

Specimens Collected and Positives by Region

Region	Specimens Collected	Verified Positives
1	5,660	75
2	35,952	410
3	15,793	279
4	9,408	124
5	20,747	359
6	10,476	226
7	2,857	38
8	5,793	134
9	19,928	392
10	4,638	50

Positive Alcohol Test Rates for Four Test Types Combined by FTA Region

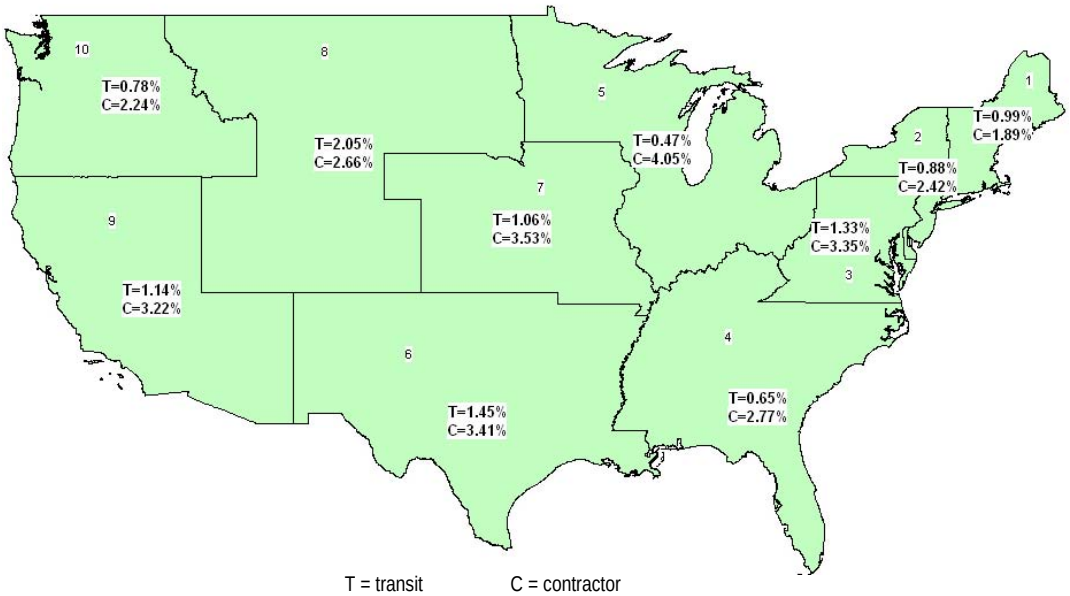


Screens Collected and Positives by Region

Region	Screens	Confirmed Positives
1	1,264	2
2	10,510	23
3	7,983	22
4	4,699	8
5	5,730	18
6	3,811	5
7	694	2
8	823	0
9	4,707	9
10	855	2

These data are subdivided by employer type and by employer size on the following pages. The drug positive rates by employer type, the drug positive rates for large employers, and the alcohol positive rates for large employers are displayed on maps. The statistical basis for the rates is provided in the accompanying tables. Because of the small sizes of their populations, the other rates appear in tables, along with the statistical basis for those rates.

Positive Drug Test Rates for Four Test Types Combined by FTA Region and Employer Type



T = transit C = contractor

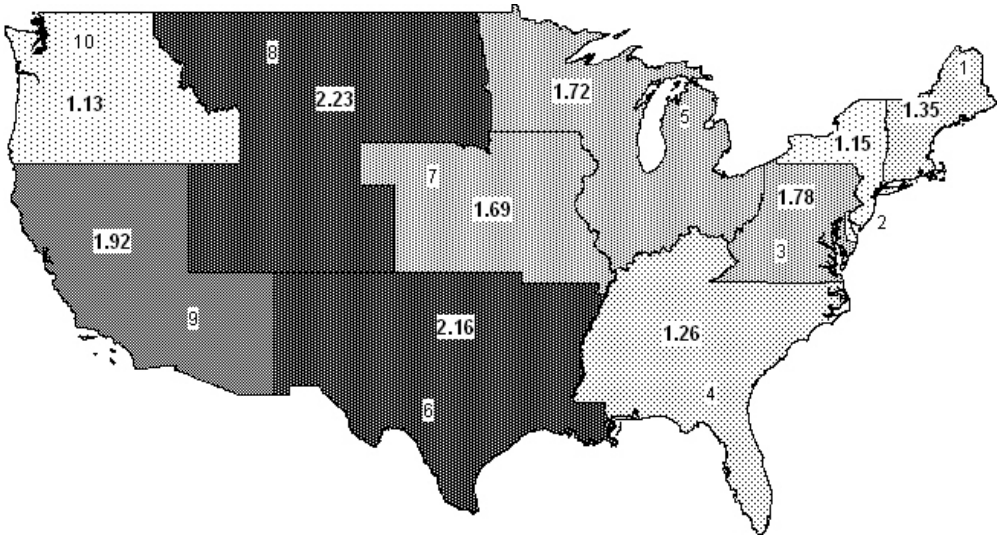
Drug Specimens Collected and Verified Positives by Region and Employer Type

	Transit		Contractor	
Region	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives
1	3,539	35	2,121	40
2	29,801	261	6,151	149
3	12,365	164	3,428	115
4	6,450	42	2,958	82
5	16,223	176	4,524	183
6	6,718	98	3,758	128
7	2,545	27	312	11
8	3,312	68	2,481	66
9	11,981	136	7,947	256
10	3,702	29	936	21

Alcohol Data for Four Test Types Combined by Region and Employer Type

	Transit			Contractor		
Region	Screens	Confirmed Positives	Positive Rate	Screens	Confirmed Positives	Positive Rate
1	961	2	0.21	484	0	0.00
2	10,122	22	0.22	2,300	8	0.35
3	7,441	18	0.24	1,361	4	0.29
4	3,915	8	0.20	841	0	0.00
5	5,551	18	0.32	849	1	0.12
6	3,341	4	0.12	531	1	0.19
7	730	3	0.41	18	0	0.00
8	707	0	0.00	266	0	0.00
9	3,928	6	0.15	1,410	5	0.35
10	803	2	0.25	108	0	0.00

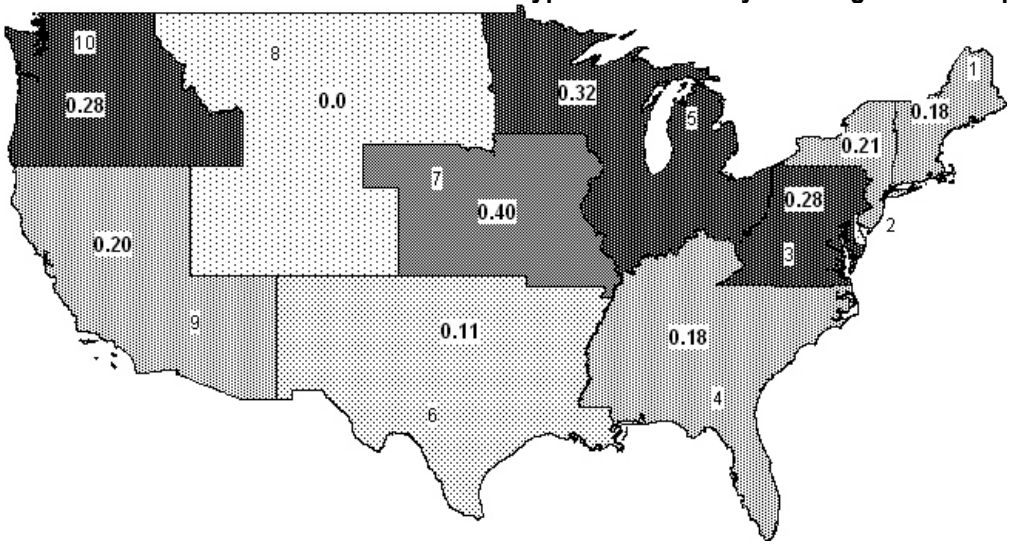
Positive Drug Test Rates for Four Test Types Combined by FTA Region and Employer Size—Large



Specimens Collected & Positives by Region and Large Employers

Region	Specimens Collected	Verified Positives
1	5,168	70
2	35,257	404
3	15,372	274
4	8,432	106
5	19,586	337
6	10,089	218
7	1,838	31
8	5,471	122
9	19,229	370
10	4,260	48

Positive Alcohol Test Rates for Four Test Types Combined by FTA Region and Employer Size—Large



Screens Collected & Positives by Region and Large Employers

Region	Screens	Confirmed Positives
1	1,086	2
2	10,234	22
3	7,885	22
4	4,439	8
5	5,468	18
6	3,735	4
7	501	2
8	784	0
9	4,607	9
10	711	2

Data for Four Test Types Combined by FTA Region and Employer Size—Small and Rural

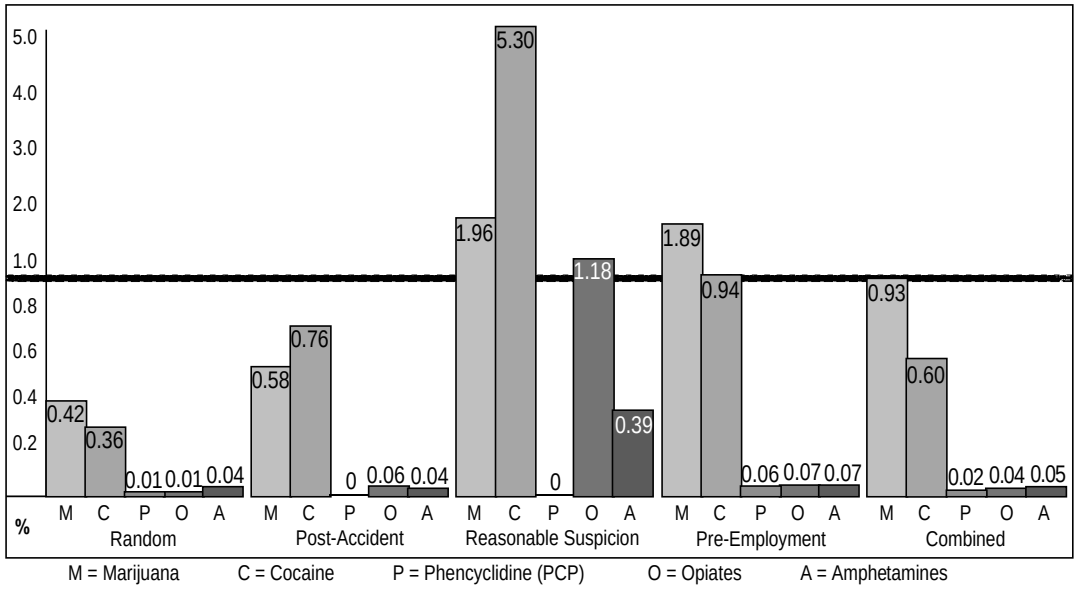
	Drugs						Alcohol					
	Small			Rural			Small			Rural		
Region	Specimens Collected	Verified Positives	Positive Rate	Specimens Collected	Verified Positives	Positive Rate	Screens	Confirmed Positives	Positive Rate	Screens	Confirmed Positives	Positive Rate
1	436	4	0.92%	56	1	1.79%	171	0	0	7	0	0
2	506	6	1.19%	189	0	0	228	0	0	48	1	2.08%
3	298	4	1.34%	123	1	0.81%	68	0	0	30	0	0
4	367	11	3.00%	609	7	1.15%	81	0	0	179	0	0
5	757	14	1.85%	404	8	1.98%	171	0	0	91	0	0
6	272	7	2.57%	115	1	0.87%	43	1	2.33%	33	0	0
7	129	1	0.45%	890	6	0.67%	27	0	0	166	0	0
8	0	0	0	322	12	3.73%	0	0	0	39	0	0
9	264	17	6.44%	435	5	0.31%	17	0	0	83	0	0
10	298	1	0.34%	80	1	1.25%	130	0	0	14	0	0

The data for calculating the verified positive rates by region for random tests alone appear in the tables of regional random test violation data, in Section 3.1.2. Regional data for the other three test types, either individually or combined as non-random test data, are insufficient to calculate meaningful rates or to accurately normalize the data reported.

3.4 Test Data by Type of Drug

The verified positive rates[5] for each type of drug tested for are presented for each test type and for the four test types combined in the following graph. Because of the large number of rates below 1.0 percent, the space below "1.0" has been expanded under the divider line to allow greater clarity in presenting those rates. The accompanying table provides the statistical basis for the positive rates. The pie charts that follow show the percentage of total drug test positives by drug type for each test type and for the four test types combined. These data are subdivided by employer type, by employer size, and by employee category later in this section.

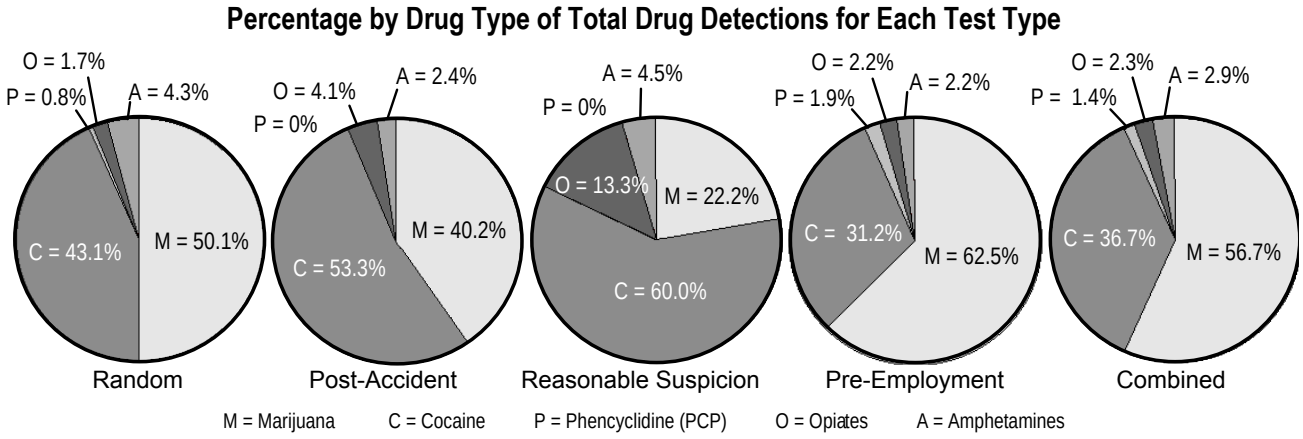
Positive Rates[5] by Drug Type and Test Type



Specimens Collected and Positives by Drug Type and Test Type

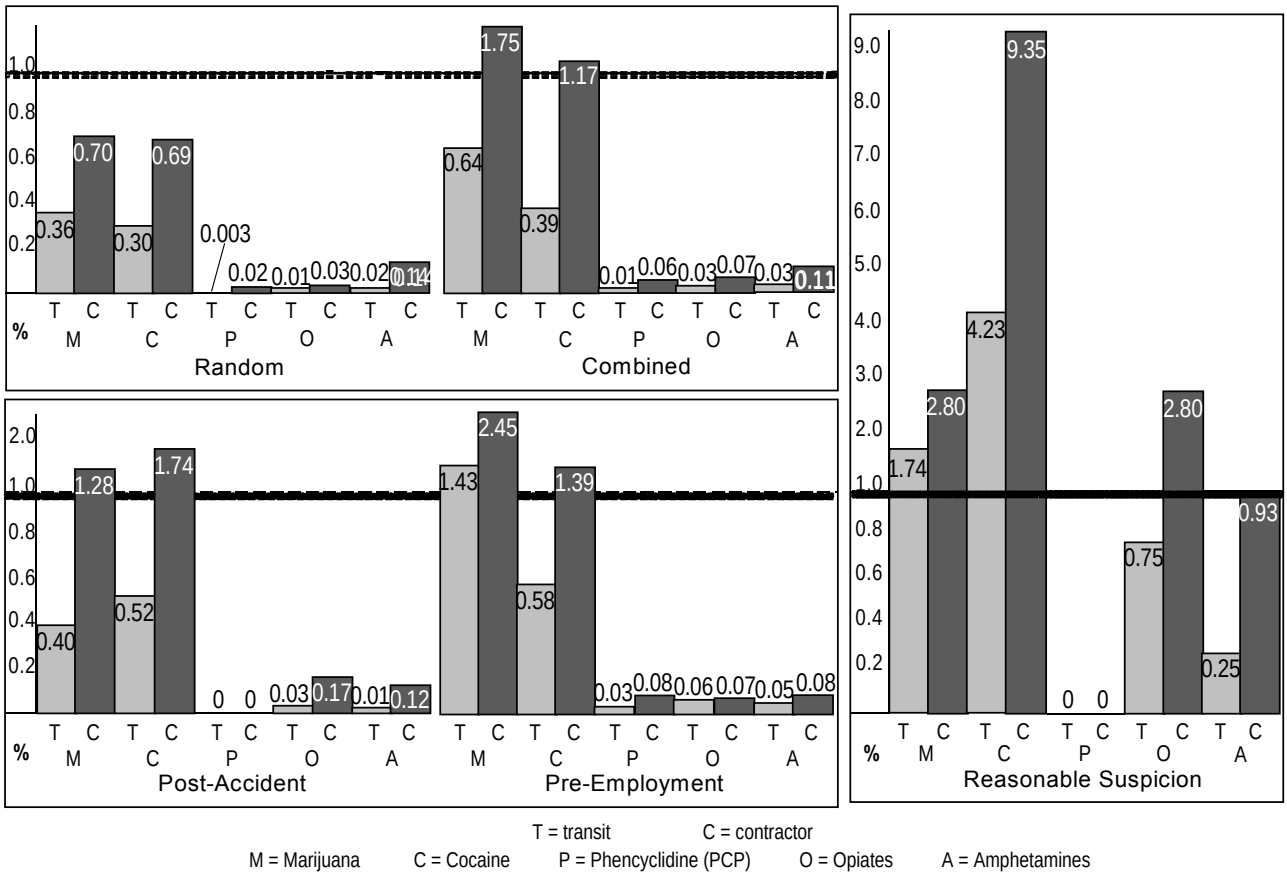
	Specimens Collected	Verified Positives				
		Marijuana	Cocaine	PCP	Opiates	Amphetamines
Random	77,774	325	280	5	11	28
Post-Accident	8,507	49	65	0	5	3
Reasonable Suspicion	509	10	27	0	6	2
Pre-Employment	44,462	841	420	25	29	30
Total	131,252	1,225	792	30	51	63

[5] For clarity in presenting the test results, "positive rate" is used differently in this report than in Part 655. Here, it does not include refusals. See the text box in Section 2.3 for a full explanation.



3.4.1 Data by Drug Type, Test Type, and Employer Type

The following three graphs and two tables subdivide the drug type/test type data by employer type. Because of the large number of rates below 1.0 percent, the space below "1.0" has been expanded under the divider line in each of these three graphs to allow greater clarity in presenting those rates.



Specimens Collected and Positives by Drug Type, Test Type, and Employer Type

	Specimens Collected		Verified Positives									
			Marijuana		Cocaine		PCP		Opiates		Amphetamines	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
Random	65,008	12,766	235	90	192	88	2	3	7	4	10	18
Post-Accident	6,782	1,725	27	22	35	30	0	0	2	3	1	2
Reasonable Suspicion	402	107	7	3	17	10	0	0	3	3	1	1
Pre-Employment	24,444	20,018	350	491	142	278	8	17	14	15	13	17
Total	96,636	34,616	619	606	386	406	10	20	26	25	25	38

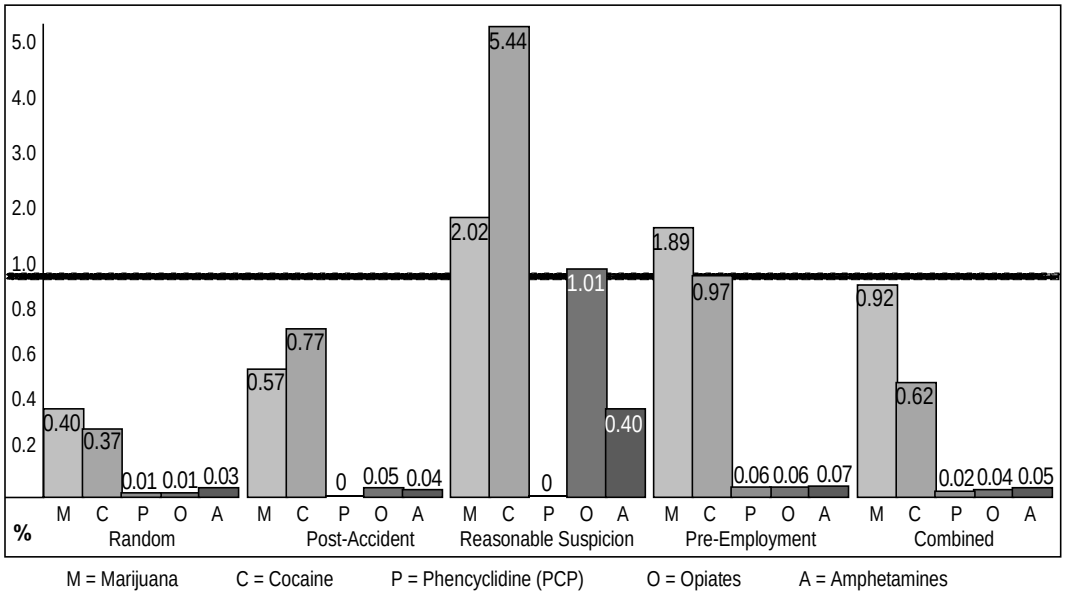
Percentage by Drug Type of Total Drug Detections for Each Test Type by Employer Type

	Transit					Contractor				
	Marijuana	Cocaine	PCP	Opiates	Ampheta-mines	Marijuana	Cocaine	PCP	Opiates	Ampheta-mines
Random	52.7	43.0	0.5	1.6	2.2	44.3	43.3	1.5	2.0	8.9
Post-Accident	41.5	53.9	0	3.1	1.5	38.6	52.6	0	5.3	3.5
Reasonable Suspicion	25.0	60.7	0	10.7	3.6	17.65	58.8	0	17.65	5.9
Pre-Employment	66.4	26.9	1.5	2.7	2.5	60.0	34.0	2.1	1.8	2.1
Combined	58.1	36.2	0.9	2.4	2.4	55.3	37.1	1.8	2.3	3.5

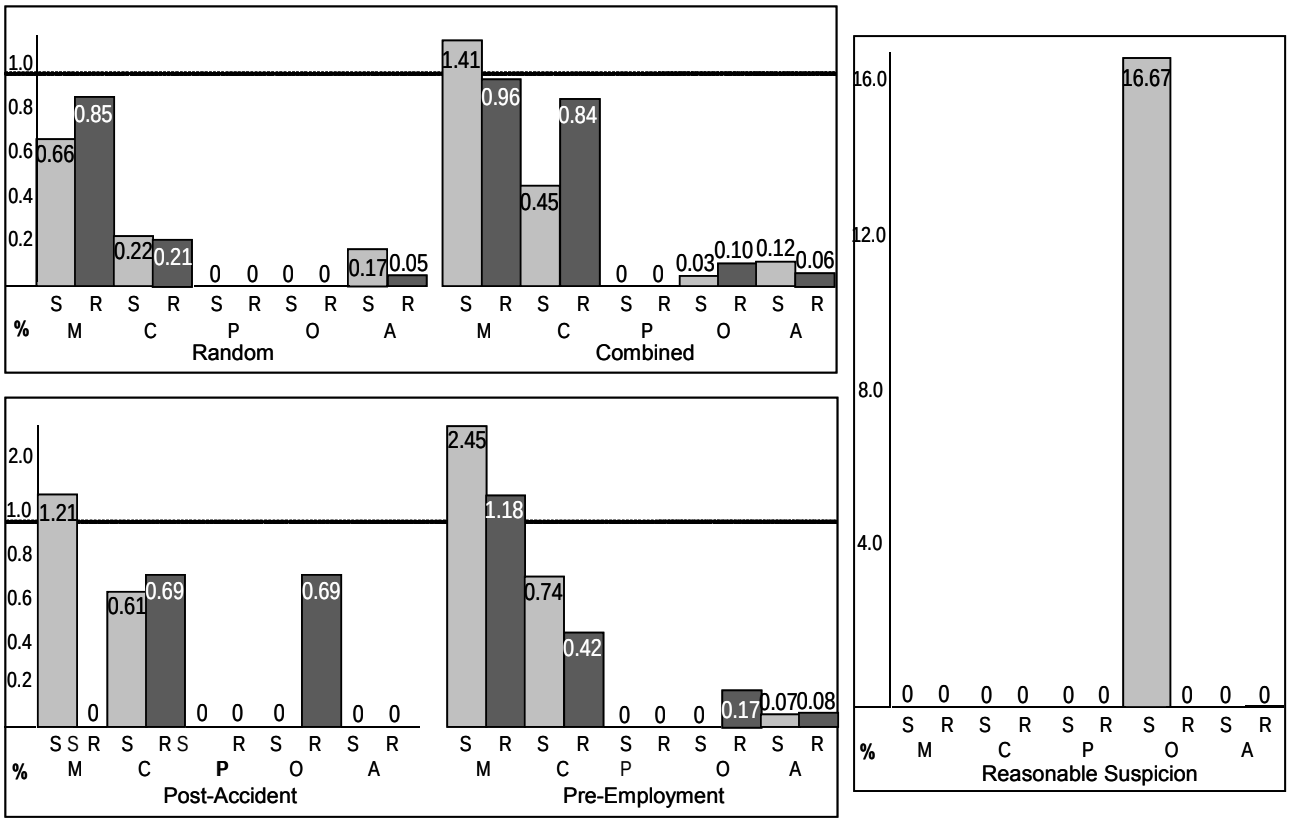
3.4.2 Data by Drug Type, Test Type, and Employer Size

The graphs and tables in this section subdivide the drug type/test type data by employer size. The graph below contains rates for large employers. The three graphs on the next page contain rates for small and rural employers. Because of the large number of rates below 1.0 percent for small and rural employers, the space below "1.0" has been expanded under the divider line in those graphs to allow greater clarity in presenting those rates.

Positive Rates by Drug Type, Test Type, and Employer Size—Large



Positive Rates by Drug Type, Test Type, and Employer Size—Small and Rural



S = small R = rural

M = Marijuana C = Cocaine P = Phencyclidine (PCP) O = Opiates A = Amphetamines

Specimens Collected and Positives by Drug Type, Test Type, and Employer Size

	Specimens Collected			Verified Positives														
				Marijuana			Cocaine			PCP			Opiates			Amphetamines		
	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural	Large	Small	Rural
Random	74,080	1,808	1,886	297	12	16	272	4	4	5	0	0	11	0	0	24	3	1
Post-Accident	8,197	165	145	47	2	0	63	1	1	0	0	0	4	0	1	3	0	0
Reasonable Suspicion	496	6	7	10	0	0	27	0	0	0	0	0	5	1	0	2	0	0
Pre-Employment	41,929	1,348	1,185	794	33	14	405	10	5	25	0	0	27	0	2	28	1	1
Total	124,702	3,327	3,123	1,148	47	30	767	15	10	30	0	0	47	1	3	57	4	2

Percentage by Drug Type of Positives for Each Test Type by Employer Size

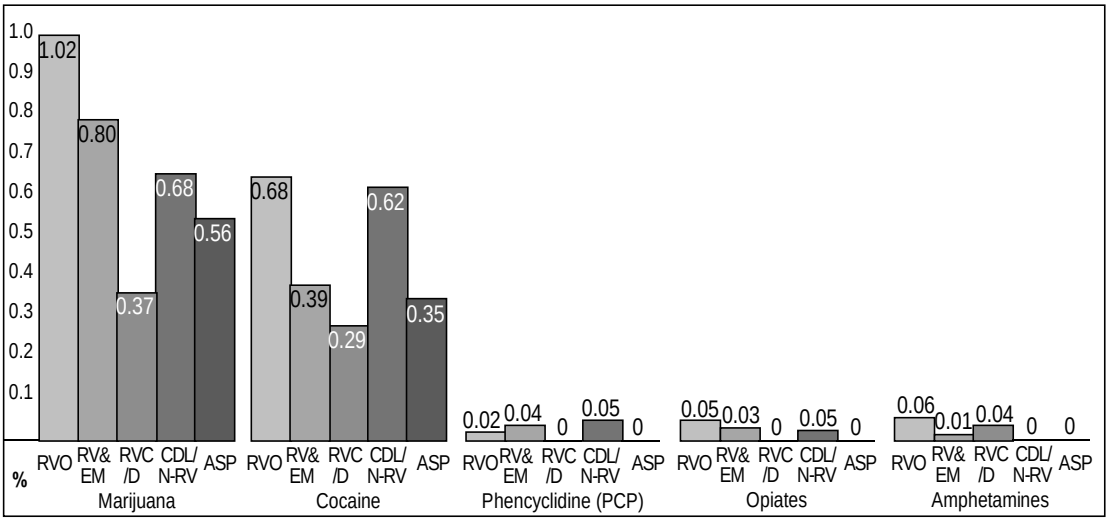
	Large					Small					Rural				
	M	C	P	O	A	M	C	P	O	A	M	C	P	O	A
Random	48.8	44.7	0.8	1.8	3.9	63.2	21.0	0	0	15.8	76.2	19.0	0	0	4.8
Post-Accident	40.2	53.8	0	3.4	2.6	66.7	33.3	0	0	0	0	50.0	0	50.0	0
Reasonable Suspicion	22.7	61.4	0	11.4	4.5	0	0	0	100	0	0	0	0	0	0
Pre-Employment	62.1	31.7	1.9	2.1	2.2	75.0	22.7	0	0	2.3	63.6	22.7	0	9.1	4.6
Combined	56.0	37.4	1.5	2.3	2.8	70.1	22.4	0	1.5	6.0	66.7	22.2	0	6.7	4.4

M = Marijuana C = Cocaine P = Phencyclidine (PCP) O = Opiates A = Amphetamines

3.4.3 Data by Drug Type, Test Type, and Employee Category

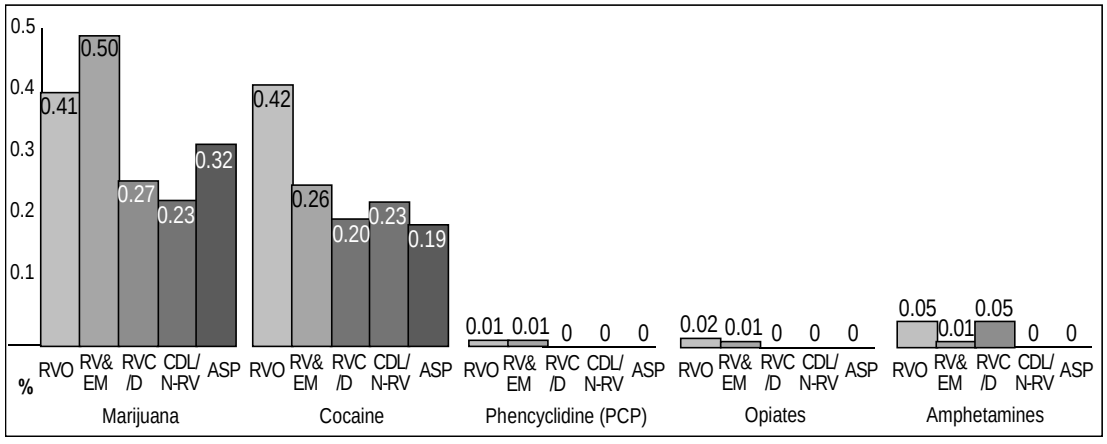
The following five graphs subdivide the drug type/test type positive rates by employee category. A graph is presented for the four test types combined and for each of the test types. The graphs show the positive rates by employee category for each drug type. The graphs are followed by a table that provides the statistical basis for the rates. That table is followed by another table that shows the percentage of total drug test positives by drug type for each test type and for the four test types combined.

Positive Rates for Four Test Types Combined by Drug Type and Employee Category



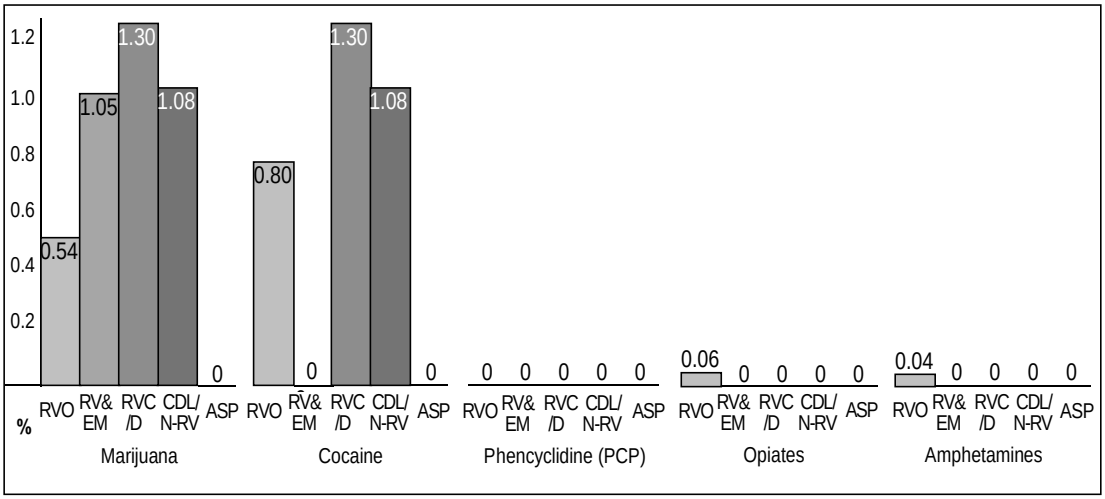
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Random Positive Rates by Drug Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

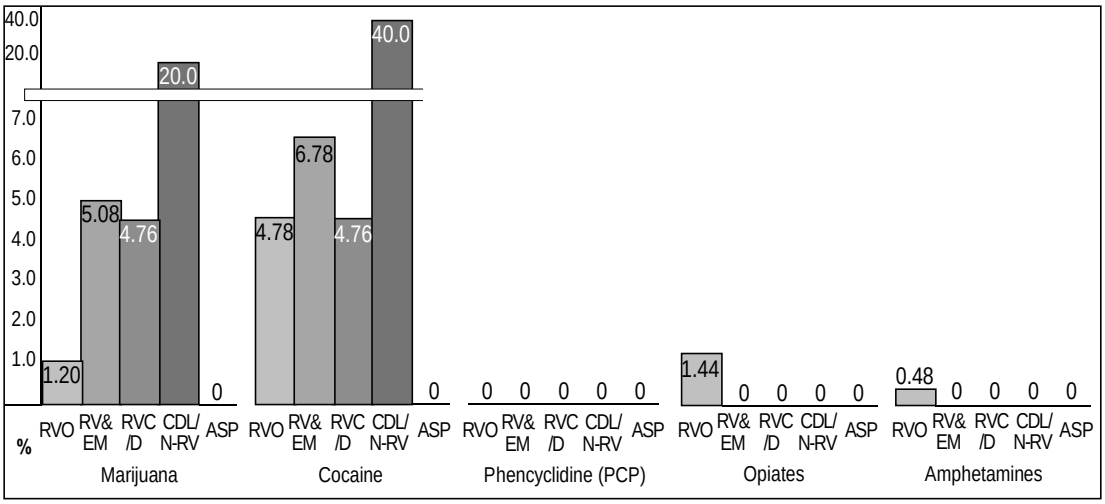
Post-Accident Positive Rates by Drug Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

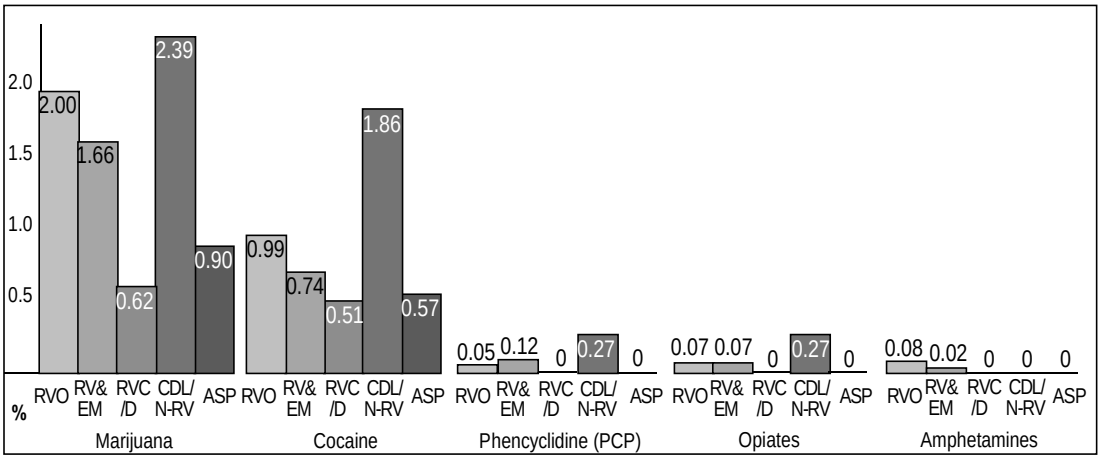
Two of the rates in the graph below are presented on a separate scale from the other rates because their sample sizes are too small to be considered representative of their populations.

Reasonable Suspicion Positive Rates by Drug Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Pre-Employment Positive Rates by Drug Type and Employee Category



RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Specimens Collected and Positives by Drug Type, Test Type, and Employee Category

		Specimens Collected	Verified Positives				
			Marijuana	Cocaine	PCP	Opiates	Amphetamines
Random	RVO	52,323	215	218	3	9	24
	RV&EM	17,757	89	46	2	2	2
	RVC/D	4,400	12	9	0	0	2
	CDL/N-RV	1,732	4	4	0	0	0
	ASP	1,562	5	3	0	0	0
Post-Accident	RVO	7,896	43	63	0	5	3
	RV&EM	381	4	0	0	0	0
	RVC/D	77	1	1	0	0	0
	CDL/N-RV	93	1	1	0	0	0
	ASP	60	0	0	0	0	0
Reasonable Suspicion	RVO	418	5	20	0	6	2
	RV&EM	59	3	4	0	0	0
	RVC/D	21	1	1	0	0	0
	CDL/N-RV	5	1	2	0	0	0
	ASP	6	0	0	0	0	0
Pre-Employment	RVO	36,220	721	359	17	24	29
	RV&EM	5,666	94	42	7	4	1
	RVC/D	974	6	5	0	0	0
	CDL/N-RV	377	9	7	1	1	0
	ASP	1,225	11	7	0	0	0
Total	RVO	96,857	984	660	20	44	58
	RV&EM	23,863	190	92	9	6	3
	RVC/D	5,472	20	16	0	0	2
	CDL/N-RV	2,207	15	14	1	1	0
	ASP	2,853	16	10	0	0	0

Percentage by Drug Type for Positives for Each Test Type by Employee Category

	Revenue Vehicle Operation					Revenue Vehicle and Equipment Maintenance					Revenue Vehicle Control/Dispatching					CDL/Non-Revenue Vehicle					Armed Security Personnel				
	M	C	P	O	A	M	C	P	O	A	M	C	P	O	A	M	C	P	O	A	M	C	P	O	A
Random	45.9	46.5	0.6	1.9	5.1	63.1	32.7	1.4	1.4	1.4	52.1	39.2	0	0	8.7	50.0	50.0	0	0	0	62.5	37.5	0	0	0
Post-Accident	37.7	55.3	0	4.4	2.6	100	0	0	0	0	50.0	50.0	0	0	0	50.0	50.0	0	0	0	0	0	0	0	0
Reasonable Suspicion	15.2	60.6	0	18.2	6.0	42.9	57.1	0	0	0	50.0	50.0	0	0	0	33.3	66.7	0	0	0	0	0	0	0	0
Pre-Employment	62.7	31.2	1.5	2.1	2.5	63.5	28.4	4.7	2.7	0.7	55.5	45.5	0	0	0	50.0	38.8	0	5.6	5.6	61.2	38.8	0	0	0
Combined	55.7	37.4	1.1	2.5	3.3	63.3	30.7	3.0	2.0	1.0	52.6	42.1	0	0	5.3	48.4	45.2	3.2	3.2	0	61.5	38.5	0	0	0

M = Marijuana C = Cocaine P = Phencyclidine (PCP) O = Opiates A = Amphetamines

3.5 Non-Positive Alcohol Violations

Data are presented for alcohol violations other than positive test results:

- Confirmed specimens with breath alcohol levels between 0.02 and 0.039
- Three non-test violations:
  - Alcohol use before performing a safety-sensitive function
  - Alcohol use within 4 hours of performing a safety-sensitive function
  - Alcohol use before taking a required post-accident test

3.5.1 Confirmed Alcohol Specimens Between 0.02 and 0.039

The following tables present data on confirmed alcohol specimens produced at levels between 0.02 and 0.039 for each test type and for all four types combined. The data presented are the percentage of such specimens of the total number of screens produced and the statistical basis for those percentages. (For all test types except reasonable suspicion and for all the types combined, the percentages of the entire number of screens and the percentage of the total number with levels lower than 0.04 are the same after rounding because the rates are extremely low. Both rates are included in the "percent of total screens" column for reasonable suspicion tests.)

The table at right presents the total number of violations. The tables below subdivide those numbers by employer type, by employer size, by employer size and type combined, by employee category, and by FTA region, respectively. The rates by FTA region are presented for all four test types combined and for random tests, but not for the other three test types individually.

Alcohol Confirmations Between 0.02 and 0.039 by Test Type

	Percent of Total Screens	Between 0.02 and 0.039	Total Screens
Random	0.06	17	26,465
Post-Accident	0.06	5	7,970
Reasonable Suspicion	1.88/ 2.06*	9	479
Pre-Employment	0.02	1	6,162
Total	0.08	32	41,076

* The bottom number is the percentage of the total number of screens excluding confirmed positives. Both percentages are the same for the other test types.

Alcohol Confirmations Between 0.02 and 0.039 by Test Type and Employer Type

	Transit			Contractor		
	Percent of Total Screens	Between 0.02 and 0.039	Total Screens	Percent of Total Screens	Between 0.02 and 0.039	Total Screens
Random	0.07	15	22,365	0.05	2	4,100
Post-Accident	0.03	2	6,607	0.22	3	1,363
Reasonable Suspicion	1.24/ 1.35*	5	402	5.19 5.97*	4	77
Pre-Employment	0.02	1	4,095	0	0	2,067
Total	0.07	23	33,469	0.12	9	7,607

*The bottom number is the percentage of the total number of screens excluding confirmed positives. Both percentages are the same for the other test types.

Alcohol Confirmations Between 0.02 and 0.039 by Test Type and Employer Size

	Large			Small			Rural		
	Percent of Total Screens	Between 0.02 and 0.039	Total Screens	Percent of Total Screens	Between 0.02 and 0.039	Total Screens	Percent of Total Screens	Between 0.02 and 0.039	Total Screens
Random	0.07	17	25,323	0	0	584	0	0	558
Post-Accident	0.06	5	7,733	0	0	141	0	0	96
Reasonable Suspicion	1.90/ 2.08*	9	473	0	0	4	0	0	2
Pre-Employment	0.02	1	5,921	0	0	207	0	0	34
Total	0.08	32	39,450	0	0	936	0	0	690

*The bottom number is the percentage of the total number of screens excluding confirmed positives. Both percentages are the same for the other test types.

Alcohol Confirmations Between 0.02 and 0.039 by Test Type, Employer Size, and Employer Type

	Large						Small						Rural					
	Transit			Contractor			Transit			Contractor			Transit			Contractor		
	%TS	.02-.039	TS	%TS	.02-.039	TS	%TS	.02-.039	TS	%TS	.02-.039	TS	%TS	.02-.039	TS	%TS	.02-.039	TS
Random	0.07	15	21,573	0.05	2	3,750	0	0	368	0	0	216	0	0	424	0	0	134
Post-Accident	0.03	2	6,427	0.23	3	1,306	0	0	111	0	0	30	0	0	69	0	0	27
Reasonable Suspicion	1.27/ 1.36*	5	398	5.33/ 6.15*	4	75	0	0	3	0	0	1	0	0	1	0	0	1
Pre-Employment	0.03	1	3,930	0	0	1,991	0	0	131	0	0	76	0	0	34	0	0	0
Total	0.09	23	32,328	0.13	9	7,122	0	0	613	0	0	323	0	0	528	0	0	162

TS = total screens

*The bottom number is the percentage of the total number of screens excluding confirmed positives. Both percentages are the same for the other test types.

Alcohol Confirmations Between 0.02 and 0.039 by Test Type and Employee Category

	Revenue Vehicle Operation			Revenue Vehicle and Equipment Maintenance			Revenue Vehicle Control/Dispatching			CDL/Non-Revenue Vehicle			Armed Security Personnel		
	Percent of Total Screens	0.02 to 0.039	Total Screens	Percent of Total Screens	0.02 to 0.039	Total Screens	Percent of Total Screens	0.02 to 0.039	Total Screens	Percent of Total Screens	0.02 to 0.039	Total Screens	Percent of Total Screens	0.02 to 0.039	Total Screens
Random	0.08	14	17,342	0.05	3	5,920	0	0	1,339	0	0	1,162	0	0	702
Post-Accident	0.07	5	7,389	0	0	364	0	0	73	0	0	84	0	0	60
Reasonable Suspicion	2.08/ 2.22*	8	384	1.56/ 2.08*	1	64	0	0	22	0	0	6	0	0	3
Pre-Employment	0	0	4,794	0.12	1	859	0	0	137	0	0	83	0	0	289
Total	0.02	27	29,909	0.07	5	7,207	0	0	1,571	0	0	1,335	0	0	1,054

*The bottom number is the percentage of the total number of screens excluding confirmed positives. Both percentages are the same for the other test types.

Random Alcohol Confirmations Between 0.02 and 0.039 by FTA Region

Region	Percent of Total Screens	Between 0.02 and 0.039	Total Screens
1	0	0	891
2	0.08	6	7,119
3	0.04	2	4,992
4	0	0	3,137
5	0.09	3	3,289
6	0.10	3	2,915
7	0	0	460
8	0	0	525
9	0.08	2	2,425
10	0.14	1	712

Total Alcohol Confirmations Between 0.02 and 0.039 for Four Test Types Combined by FTA Region

Region	Percent of Total Screens	Between 0.02 and 0.039	Total Screens
1	0.16	2	1,264
2	0.07	7	10,510
3	0,05	4	7,983
4	0.04	2	4,699
5	0.10	6	5,730
6	0.10	4	3,811
7	0.43	1	694
8	0.24	2	823
9	0.06	3	4,707
10	0.12	1	855

3.5.2 Non-Test Alcohol Violations

Because non-test violations cannot be expressed as a rate, the number of instances reported have been normalized for the total number of employers by each size category. Data are provided for each of the three non-test violations and for the total of the three violations. The first table presents the total number of violations. The other tables subdivide those numbers by employer type and by employer size, respectively. The table of violations by size also subdivides the large employer data by employer type. Non-test violations were not reported by employee category.

Non-Test Alcohol Violations	Normalized	Reported
Alcohol use before performing a safety-sensitive function	0	0
Alcohol use within 4 hours of performing a safety-sensitive function	11	5
Alcohol use before taking a required post-accident test	4	2
Total	15	7

Non-Test Alcohol Violations by Employer Type

	Normalized		Reported	
	Transit	Contractor	Transit	Contractor
Alcohol use before performing a safety-sensitive function	0	0	0	0
Alcohol use within 4 hours of performing a safety-sensitive function	9	2	4	1
Alcohol use before taking a required post-accident test	2	2	1	1
Total	11	4	5	2

Non-Test Alcohol Violations by Employer Size

	Normalized					Reported				
	Large			Small	Rural	Large			Small	Rural
	Total	T	C			Total	T	C		
Alcohol use before performing a safety-sensitive function	0	0	0	0	0	0	0	0	0	0
Alcohol use within 4 hours of performing a safety-sensitive function	11	9	2	0	0	5	4	1	0	0
Alcohol use before taking a required post-accident test	4	2	2	0	0	2	1	1	0	0
Total	15	11	4	0	0	7	5	2	0	0

T = transit C = contractor

4. Return to Duty Data

This chapter presents data on persons who have been returned to FTA safety-sensitive duty after testing positive for drugs or alcohol or refusing to submit to a required test and who have subsequently completed a rehabilitation program designed by a substance abuse professional (SAP). Section 4.1 presents statistics on the number of persons returned to duty in calendar year 2001. Section 4.2 summarizes data for return to duty tests performed in 2001. Section 4.3 summarizes data for follow-up tests performed in 2001. The results are sorted and presented by various criteria: employer type, employer size, employee category, FTA region, and drug type.

As mentioned in Chapter 1, only a portion of the recipients and subrecipients were requested to report their test data in 2001. Those employers were randomly selected from three stratified sample populations, based on employer size—406 large employers, 72 small employers, and 187 rural employers.[6] To make the sample data meaningful, the results are expressed as rates where possible, i.e., in Sections 4.2 and 4.3. The number of persons returned to duty (in Section 4.1) are normalized by each size category to represent the total number of employers. The actual number of instances reported is also presented to provide basis for the rates or normalization.

4.1 Employees Returned to Duty in 2001

Data are presented for the number of employees who were returned to duty following a drug violation and following an alcohol violation. However, one person may test positive for both drugs and alcohol, and most employers test the returned employees for both drugs and alcohol. Thus, the numbers for drugs and alcohol cannot be added to obtain the total number of persons returned to duty. No statistics were reported for the total number returned to duty.

Because these data cannot be expressed as a rate, the number of instances reported have been normalized for the total number of employees by each size category. The table at left presents the number of employees returned to duty. These data are subdivided by employer type and by employer size in the tables below.

Employees Returned to Duty

	Drugs	Alcohol
Normalized	689	133
Reported	289	53

Employees Returned to Duty by Employer Type

	Drugs		Alcohol	
	Transit	Contractor	Transit	Contractor
Normalized	598	91	120	13
Reported	251	38	48	5

Employees Returned to Duty by Employer Size

	Drugs			Alcohol		
	Large	Small	Rural	Large	Small	Rural
Normalized	585	21	83	105	5	23
Reported	274	4	11	49	1	3

[6] The population that surrounds the transit organization determines the size of operation for each agency. Large, small, and rural organizations are categorized by a population of 200,000 or more, 50,000 to 200,000, and less than 50,000, respectively.

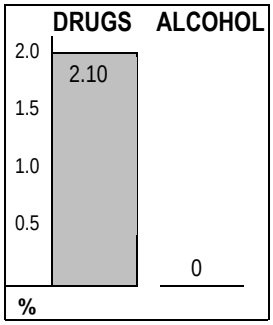
The data by employer size are further subdivided by employer type in the next table. Employees returned to duty were not reported by employee category.

Employees Returned to Duty by Employer Size and Employer Type

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
Normalized	512	73	16	5	60	23	94	11	5	0	23	0
Reported	240	34	3	1	8	3	44	5	1	0	3	0

4.2 Return to Duty Test Data

Return to Duty Positive Rates



The positive rates for return to duty drug tests and alcohol tests[7] are shown in the graph at left. The statistical basis for those rates are provided in the table below. The drug test rates are subdivided by employer type and size, by employee category, by FTA region, and by type of drug later in this section. Because no confirmed positive return to duty alcohol tests were reported in 2001, alcohol rates are not included in the graphs containing subdivided data.

Return to Duty Specimens/ Screens Collected and Positives

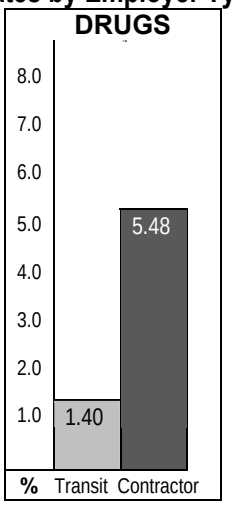
	Drugs	Alcohol
Specimens Collected	859	513*
Verified Positives	18	0

*Total screens collected

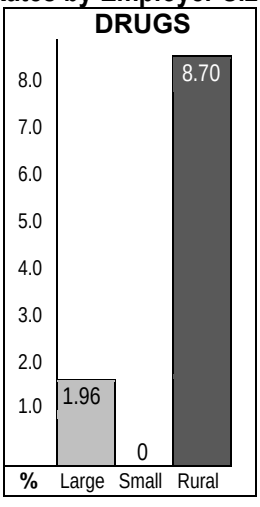
4.2.1 Return to Duty Test Data by Employer Type and Size

The following three graphs present the return to duty drug test rates by employer type, by employer size, and by employer size and type, respectively. The three tables that follow provide the statistical basis for the positive rates.

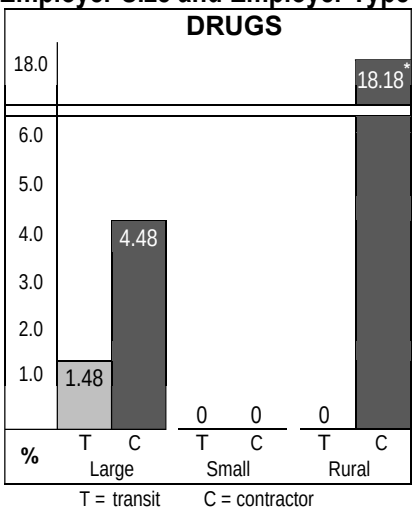
Return to Duty Positive Rates by Employer Type



Return to Duty Positive Rates by Employer Size



Return to Duty Positive Rates by Employer Size and Employer Type



*Sample is not to scale. Size is too small to be considered representative of population.

[7]A positive alcohol test is a specimen with a confirmed breath alcohol level of at least 0.04.

Return to Duty Specimens/Screens Collected and Positives by Employer Type

	Drugs		Alcohol	
	Transit	Contractor	Transit	Contractor
Specimens Collected	713	146	475*	38*
Verified Positives	10	8	0	0

*Total screens collected

Return to Duty Specimens/Screens Collected and Positives by Employer Size

	Drugs			Alcohol		
	Large	Small	Rural	Large	Small	Rural
Specimens Collected	816	20	23	495*	17*	1*
Verified Positives	16	0	2	0	0	0

*Total screens collected

Return to Duty Specimens/Screens Collected and Positives by Employer Size and Employer Type

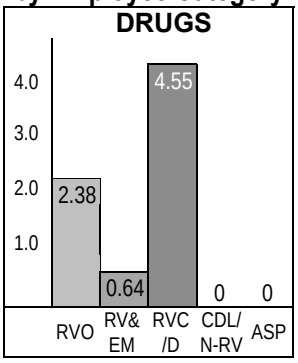
	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
Specimens Collected	682	134	19	1	12	11	458*	37*	16	1*	1*	0*
Verified Positives	10	6	0	0	0	2	0	0	0	0	0	0

*Total screens collected

4.2.2 Return to Duty Test Data by Employee Category

The following graph shows the verified positive rates for return to duty drug tests by employee category. The table next to it provides the statistical basis for the positive rates. These data are further subdivided by employer type and by employer size on the next page.

Return to Duty Positive Rates by Employee Category



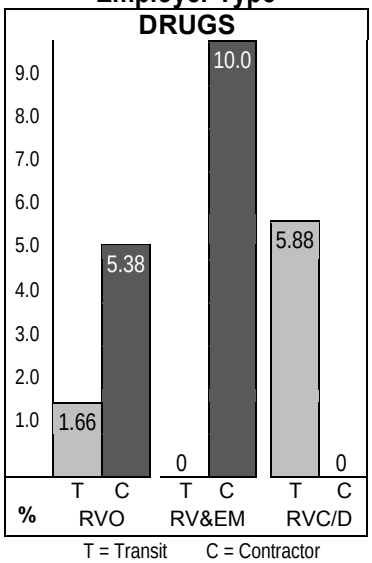
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Return to Duty Specimens/Screens Collected and Positives by Employee Category

	Drugs		Alcohol	
	Specimens Collected	Verified Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	671	16	396	0
Revenue Vehicle and Equipment Maintenance	157	1	96	0
Revenue Vehicle Control/Dispatching	22	1	12	0
CDL/Non-Revenue Vehicle	8	0	8	0
Armed Security Personnel	1	0	1	0

Note: Because there were no positive return to duty drug tests reported for the CDL/N-RV and ASP categories in 2001, the next two graphs do not include those categories.

Return to Duty Positive Rates by Employee Category and Employer Type



T = Transit C = Contractor

RVO = Revenue Vehicle Operation

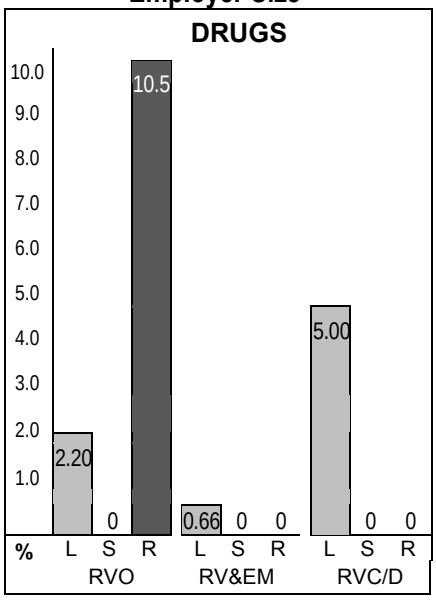
RV&EM = Revenue Vehicle and Equipment Maintenance

RVC/D = Revenue Vehicle Control/Dispatching

Return to Duty Specimens/Screens Collected and Positives by Employee Category and Employer Type

	Drugs			
	Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives
Revenue Vehicle Operation	541	9	130	7
Revenue Vehicle & Equipment Maintenance	147	0	10	1
Revenue Vehicle Control/Dispatching	17	1	5	0
CDL/Non-Revenue Vehicle	7	0	1	0
Armed Security Personnel	1	0	0	0
	Alcohol			
	Transit		Contractor	
	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	369	0	27	0
Revenue Vehicle & Equipment Maintenance	90	0	6	0
Revenue Vehicle Control/Dispatching	8	0	4	0
CDL/Non-Revenue Vehicle	7	0	1	0
Armed Security Personnel	1	0	0	0

Return to Duty Positive Rates by Employee Category and Employer Size



L = large S = small R = rural

RVO = Revenue Vehicle Operation

RV&EM = Revenue Vehicle & Equipment Maintenance

RVC/D = Revenue Vehicle Control/Dispatching

Return to Duty Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs					
	Large		Small		Rural	
	SC	VP	SC	VP	SC	VP
Revenue Vehicle Operation	635	14	17	0	19	2
Revenue Vehicle & Equipment Maintenance	152	1	2	0	3	0
Revenue Vehicle Control/Dispatching	20	1	1	0	1	0
CDL/Non-Revenue Vehicle	8	0	0	0	0	0
Armed Security Personnel	1	0	0	0	0	0
	Alcohol					
	Large		Small		Rural	
	S	CP	S	CP	S	CP
Revenue Vehicle Operation	380	0	15	0	1	0
Revenue Vehicle & Equipment Maintenance	95	0	1	0	0	0
Revenue Vehicle Control/Dispatching	11	0	1	0	0	0
CDL/Non-Revenue Vehicle	8	0	0	0	0	0
Armed Security Personnel	1	0	0	0	0	0

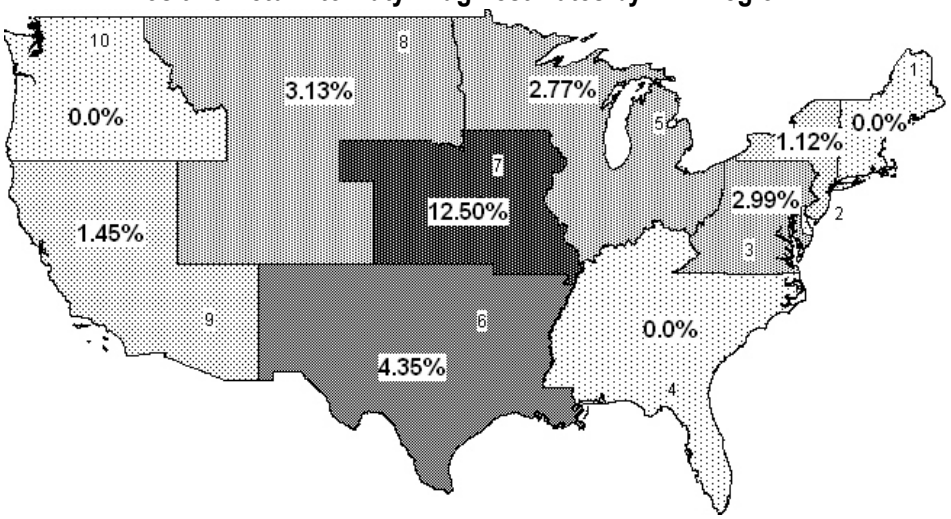
SC = specimens collected VP = verified positives

S = screens CP = confirmed positives

4.2.3 Return to Duty Test Data by FTA Region

The following map shows the verified positive rates for return to duty drug tests for each of FTA's ten regions. The shading variations enable quick comparison. The exact rates are also included. The statistical basis for those rates is provided in the accompanying table. The table following the map shows the number of return to duty alcohol screens collected in each FTA region.

Positive Return to Duty Drug Test Rates by FTA Region



Return to Duty Specimens Collected & Positives by Region

Region	Specimens Collected	Verified Positives
1	15	0
2	268	3
3	67	2
4	29	0
5	253	7
6	23	1
7	16	2
8	32	1
9	138	2
10	18	0

Return to Duty Alcohol Screens Collected and Positives by Region

Region	1	2	3	4	5	6	7	8	9	10
Screens	12	82	66	16	215	8	12	21	78	3
Confirmed Positives	0	0	0	0	0	0	0	0	0	0

4.2.4 Return to Duty Test Data by Type of Drug

The next two tables show return to duty test data for each type of drug tested for. The number of drug test specimens collected and the number and percent of those that were verified positive are shown at left. The percentage of total positives by drug type are shown at right. These data are subdivided by employer type, by employer size, and by employee category on the next page.

Return to Duty Specimens Collected, Positives, and Rates by Drug Type

859 specimens collected		
	Positives	Percent
Marijuana	10	1.16
Cocaine	6	0.70
PCP	0	0
Opiates	0	0
Amphetamines	2	0.23

Percentage by Drug Type for Return to Duty Positives

Marijuana	55
Cocaine	33
PCP	0
Opiates	0
Amphetamines	12

Return to Duty Specimens Collected, Positives, and Rates by Drug Type and Employer Type

	Transit		Contractor	
	713 collected		146 collected	
	Positives	Percent	Positives	Percent
Marijuana	5	0.70	5	3.42
Cocaine	4	0.56	2	1.37
PCP	0	0	0	0
Opiates	0	0	0	0
Amphetamines	1	0.14	1	0.68

Percentage by Drug Type for Return to Duty Positives by Employer Type

	Transit	Contractor
Marijuana	50.0	62.5
Cocaine	40.0	25.0
PCP	0	0
Opiates	0	0
Amphetamines	10.0	12.5

Return to Duty Specimens Collected, Positives, and Rates by Drug Type and Employer Size

	Large		Small		Rural	
	816 collected		20 collected		23 collected	
	Positives	Percent	Positives	Percent	Positives	Percent
Marijuana	9	1.10	0	0	1	4.35
Cocaine	6	0.74	0	0	0	0
PCP	0	0	0	0	0	0
Opiates	0	0	0	0	0	0
Amphetamines	1	0.12	0	0	1	4.35

Percentage by Drug Type for Return to Duty Positives by Employer Size

	Large	Small	Rural
Marijuana	56.25	0	50.0
Cocaine	37.5	0	0
PCP	0	0	0
Opiates	0	0	0
Amphetamines	6.25	0	50.0

Return to Duty Specimens Collected, Positives, and Rates by Drug Type and Employee Category

	RVO		RV&EM		RVC/D		CDL/N-RV		ASP	
	671collected		157collected		22 collected		8 collected		1 collected	
	Positives	Percent	Positives	Percent	Positives	Percent	Positives	Percent	Positives	Percent
Marijuana	8	1.20	1	0.64	1	4.55	0	0	0	0
Cocaine	6	0.90	0	0	0	0	0	0	0	0
PCP	0	0	0	0	0	0	0	0	0	0
Opiates	0	0	0	0	0	0	0	0	0	0
Amphetamines	2	0.30	0	0	0	0	0	0	0	0

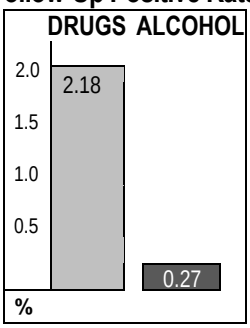
Percentage by Drug Type for Return to Duty Positives by Employee Category

	RVO	RV&EM	RVC/D	CDL/N-RV	ASP
M	80.0	10.0	10.0	0	0
C	100	0	0	0	0
P	0	0	0	0	0
O	0	0	0	0	0
A	100	0	0	0	0

RVO = Revenue Vehicle Operation RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching CDL/N-RV = CDL/Non-Revenue Vehicle ASP = Armed Security Personnel
M = Marijuana C = Cocaine P = Phencyclidine (PCP) O = Opiates A = Amphetamines

4.3 Follow-Up Test Data

Follow-Up Positive Rates



The positive rates for follow-up drug tests and alcohol tests are shown in the graph at left. The statistical basis for those rates is provided in the table below. These data are subdivided by employer type and size, by employee category, by FTA region, and by type of drug later in this section.

Follow-Up Specimens/Screens Collected and Positives

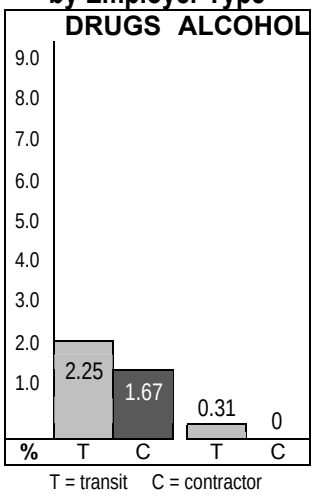
	Drugs	Alcohol
Specimens Collected	4,956	4,080*
Verified Positives	108	11

*Total screens collected

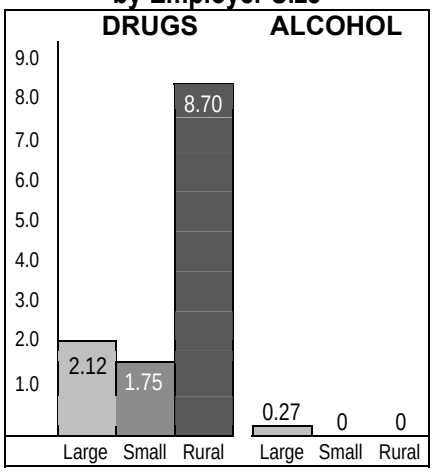
4.3.1 Follow-Up Test Data by Employer Type and Size

The following three graphs present the follow-up test rates by employer type, by employer size, and by employer size and type, respectively. Because there were no confirmed alcohol positives reported by small or rural employers, the graph (at right) showing employer size rates subdivided by employer type shows alcohol rates only for large employers. The three tables that follow provide the statistical basis for the positive rates.

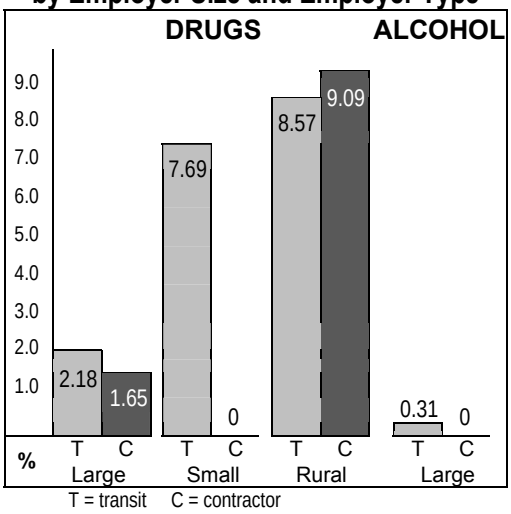
Follow-Up Positive Rates by Employer Type



Follow-Up Positive Rates by Employer Size



Follow-Up Positive Rates by Employer Size and Employer Type



Follow-Up Specimens/Screens Collected and Positives by Employer Type

	Drugs		Alcohol	
	Transit	Contractor	Transit	Contractor
Specimens Collected	4,356	600	3,555*	525*
Verified Positives	98	10	11	0

*Total screens collected

Follow-Up Specimens/Screens Collected and Positives by Employer Size

	Drugs			Alcohol		
	Large	Small	Rural	Large	Small	Rural
Specimens Collected	4,853	57	46	4,070*	3*	7*
Verified Positives	103	1	4	11	0	0

*Total screens collected

Follow-Up Specimens/Screens Collected and Positives by Employer Size and Employer Type

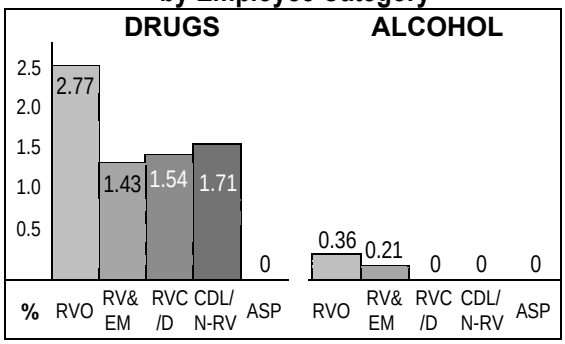
	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor	Transit	Contractor
Specimens Collected	4,308	545	13	44	35	11	3,545*	525*	3*	0*	7*	0*
Verified Positives	94	9	1	0	3	1	11	0	0	0	0	0

*Total screens collected

4.3.2 Follow-Up Test Data by Employee Category

The following graph shows the positive rates for follow-up drug tests and alcohol tests by employee category. The accompanying table provides the statistical basis for the positive rates. These data are further subdivided by employer type and employer size in the subsequent graphs and tables.

Follow-Up Positive Rates by Employee Category



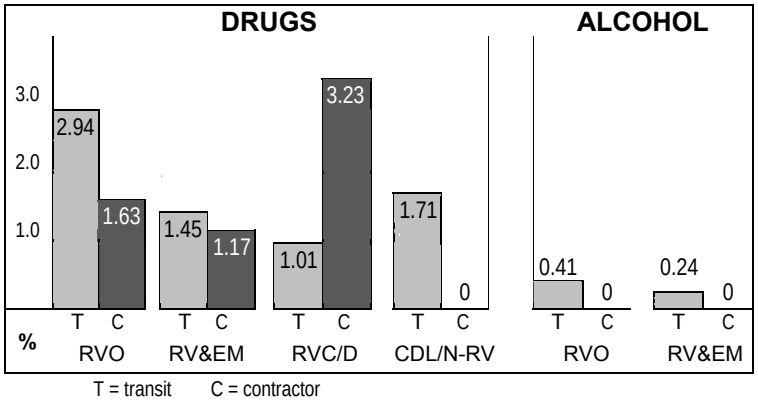
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle
ASP = Armed Security Personnel

Follow-Up Specimens/Screens Collected and Positives by Employee Category

	Drugs	
	Specimens Collected	Verified Positives
Revenue Vehicle Operation	2,747	76
Revenue Vehicle & Equipment Maintenance	1,754	25
Revenue Vehicle Control/Dispatching	260	4
CDL/Non-Revenue Vehicle	175	3
Armed Security Personnel	20	0
	Alcohol	
	Screens	Confirmed Positives
Revenue Vehicle Operation	2,235	8
Revenue Vehicle & Equipment Maintenance	1,452	3
Revenue Vehicle Control/Dispatching	250	0
CDL/Non-Revenue Vehicle	128	0
Armed Security Personnel	15	0

Note: Because there were no positive follow-up drug tests reported for the ASP category in 2001 and there were no positive alcohol tests reported for the RVC/D, CDL/N-RV, and ASP categories, the next two graphs do not include those columns.

Follow-Up Positive Rates by Employee Category and Employer Type

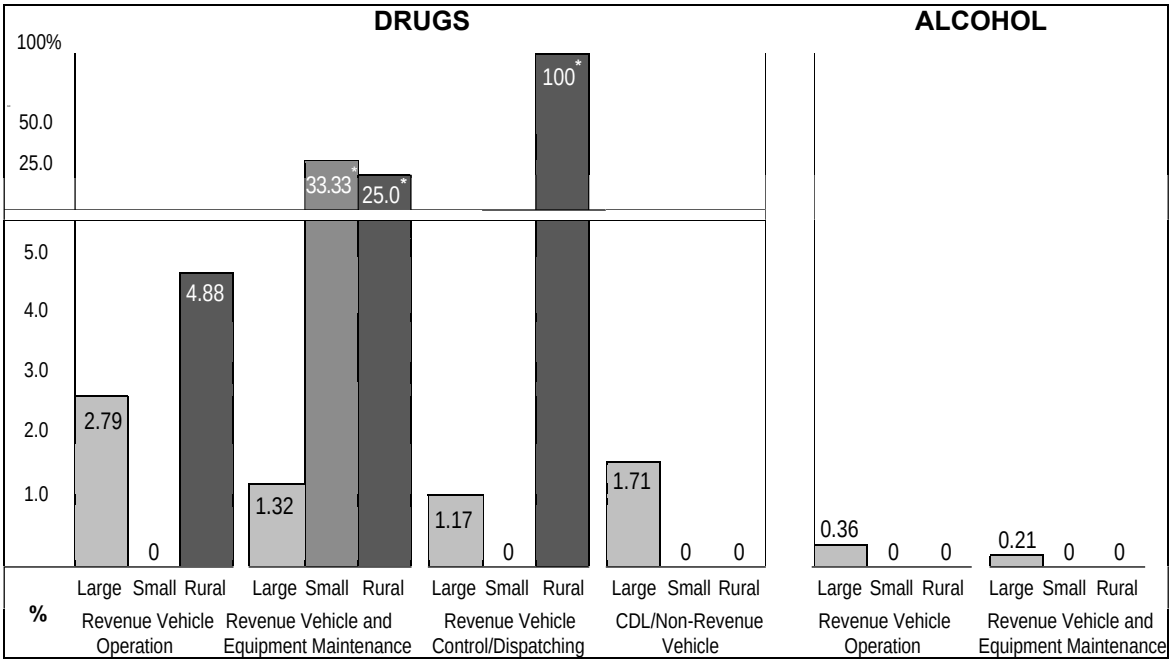


T = transit C = contractor
RVO = Revenue Vehicle Operation
RV&EM = Revenue Vehicle and Equipment Maintenance
RVC/D = Revenue Vehicle Control/Dispatching
CDL/N-RV = CDL/Non-Revenue Vehicle

Follow-Up Specimens/Screens Collected and Positives by Employee Category and Employer Type

	Drugs				Alcohol			
	Transit		Contractor		Transit		Contractor	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	2,380	70	367	6	1,940	8	295	0
Revenue Vehicle and Equipment Maintenance	1,583	23	171	2	1,263	3	189	0
Revenue Vehicle Control/Dispatching	198	2	62	2	210	0	40	0
CDL/Non-Revenue Vehicle	175	3	0	0	127	0	1	0
Armed Security Personnel	20	0	0	0	15	0	0	0

Follow-Up Positive Rates by Employee Category and Employer Size



*Samples with percent positives of 25, 33.3, and 100 are not to scale. Additionally, those samples were based on only 4 specimens, 3 specimens, and 1 specimen, respectively. The sample sizes are too small to be considered representative of their populations.

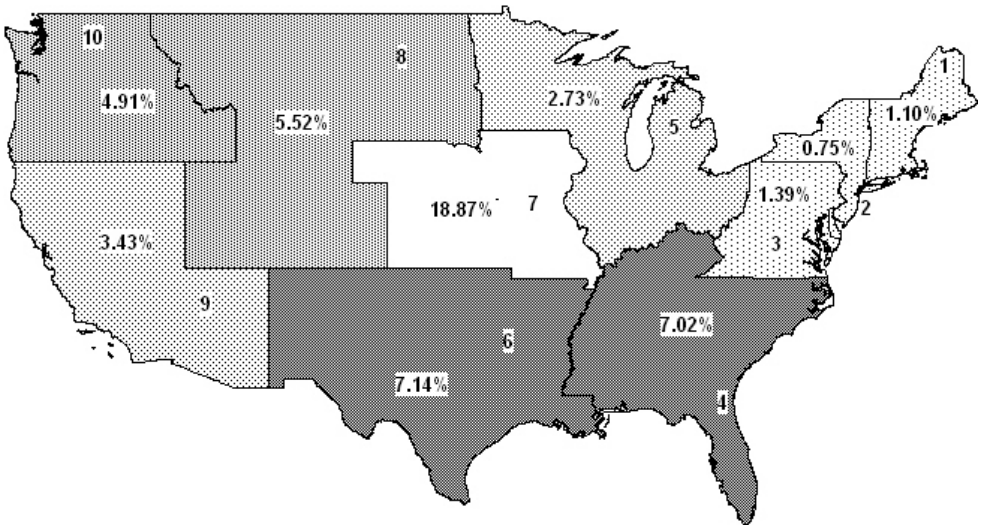
Follow-Up Specimens/Screens Collected and Positives by Employee Category and Employer Size

	Drugs						Alcohol					
	Large		Small		Rural		Large		Small		Rural	
	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Specimens Collected	Verified Positives	Screens	Confirmed Positives	Screens	Confirmed Positives	Screens	Confirmed Positives
Revenue Vehicle Operation	2,655	74	51	0	41	2	2,226	8	2	0	7	0
Revenue Vehicle and Equipment Maintenance	1,747	23	3	1	4	1	1,451	3	1	0	0	0
Revenue Vehicle Control/Dispatching	256	3	3	0	1	1	250	0	0	0	0	0
CDL/Non-Revenue Vehicle	175	3	0	0	0	0	128	0	0	0	0	0
Armed Security Personnel	20	0	0	0	0	0	15	0	0	0	0	0

4.3.3 Follow-Up Test Data by FTA Region

The following two maps show the positive rates for follow-up drug tests and alcohol tests for each of FTA's ten regions. The shading variations enable quick comparison. The exact rates are also included. The statistical basis for those rates is provided in the accompanying tables.

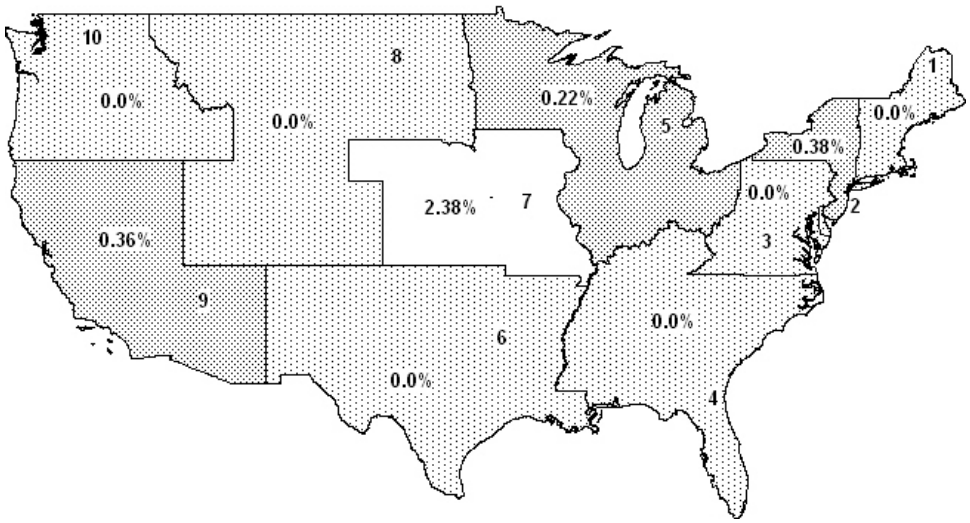
Positive Follow-Up Drug Test Rates by FTA Region



Follow-Up Specimens Collected and Positives by Region

Region	Specimens Collected	Verified Positives
1	181	2
2	2,010	15
3	866	12
4	57	4
5	733	20
6	56	4
7	53	10
8	163	9
9	613	21
10	224	11

Positive Follow-Up Alcohol Test Rates by FTA Region



Follow-Up Screens Collected and Positives by Region

Region	Screens	Confirmed Positives
1	169	0
2	1,830	7
3	753	0
4	41	0
5	455	1
6	53	0
7	42	1
8	131	0
9	553	2
10	53	0

4.3.4 Follow-Up Test Data by Type of Drug

The next two tables show follow-up test data for each type of drug tested for. The number of drug test specimens collected and the number and percent of

those that were verified positive are shown at left, and the percentage of total positives by drug type are shown at right. These data are subdivided by employer type, by employer size, and by employee category in the tables that follow.

Follow-Up Specimens Collected, Positives, and Rates by Drug Type

4956 specimens collected		
	Positives	Percent
Marijuana	56	1.13
Cocaine	44	0.89
PCP	1	0.02
Opiates	2	0.04
Amphetamines	6	0.12

Percentage by Drug Type for Follow-Up Positives

Marijuana	51.4
Cocaine	40.4
PCP	0.9
Opiates	1.8
Amphetamines	5.5

Follow-Up Specimens Collected, Positives, and Rates by Drug Type and Employer Type

	Transit		Contractor	
	4356 collected		600 collected	
	Positives	Percent	Positives	Percent
Marijuana	51	1.17	5	0.83
Cocaine	40	0.92	4	0.67
PCP	1	0.02	0	0
Opiates	2	0.04	0	0
Amphetamines	5	0.11	1	0.16

Percentage by Drug Type for Follow-Up Positives by Employer Type

	Transit	Contractor
Marijuana	51.5	50.0
Cocaine	40.4	40.0
PCP	1.0	0
Opiates	2.0	0
Amphetamines	5.1	10.0

Follow-Up Specimens Collected, Positives, and Rates by Drug Type and Employer Size

	Large		Small		Rural	
	4853 collected		57 collected		46 collected	
	Positives	Percent	Positives	Percent	Positives	Percent
Marijuana	51	1.05	1	1.75	4	8.70
Cocaine	44	0.91	0	0	0	0
PCP	1	0.02	0	0	0	0
Opiates	2	0.04	0	0	0	0
Amphetamines	6	0.12	0	0	0	0

Percentage by Drug Type for Follow-Up Positives by Employer Size

	Large	Small	Rural
Marijuana	49.0	100	100
Cocaine	42.3	0	0
PCP	1.0	0	0
Opiates	1.9	0	0
Amphetamines	5.8	0	0

Follow-Up Specimens Collected, Positives, and Rates by Drug Type and Employee Category

	RVO		RV&EM		RVC/D		CDL/N-RV		ASP	
	2747 collected		1754 collected		260 collected		175 collected		20 collected	
	Positives	Percent	Positives	Percent	Positives	Percent	Positives	Percent	Positives	Percent
Marijuana	2	0.07	1	0.06	2	0.77	0	0	0	0
Cocaine	4	0.15	0	0	0	0	0	0	0	0
PCP	0	0	0	0	0	0	0	0	0	0
Opiates	0	0	0	0	0	0	0	0	0	0
Amphetamines	0	0	1	0.06	0	0	0	0	0	0

Percentage by Drug Type for Follow-Up Positives by Employee Category

	RVO	RV&EM	RVC/D	CDL/N-RV	ASP
M	40.0	20.0	40.0	0	0
C	100	0	0	0	0
P	0	0	0	0	0
O	0	0	0	0	0
A	0	100	0	0	0

RVO = Revenue Vehicle Operation RV&EM = Revenue Vehicle and Equipment Maintenance

RVC/D = Revenue Vehicle Control/Dispatching CDL/N-RV = CDL/Non-Revenue Vehicle ASP = Armed Security Personnel

M = Marijuana C = Cocaine P = Phencyclidine (PCP) O = Opiates A = Amphetamines

5. Trend Analysis

This chapter compares reported drug test and alcohol test[8] results for each year from 1996 to 2001. Comparisons are presented for random test violation rates, random test positive rates, and the combined positive rates for all the test results reported. The random test violation rates are subdivided by employer type.

In this report, the violation rate[9] refers to the number of positives and refusals combined per person selected to take a random test:

Drug violation rate = (verified positives + refusals) ÷ (specimens collected + refusals)

Alcohol violation rate = (confirmed positives + refusals) ÷ (screens + refusals)

The positive rate[9] does not include refusals. For drugs, it is number of verified positives per the total number of specimens collected. For alcohol, it is number of confirmed positives per the total number of screens collected.

5.1 Random Violation Rates

As mentioned in Section 2.3, the combined percentage of positives plus refusals (i.e., the violation rate) is the best indication of the overall level of drug use and alcohol misuse, and is used by FTA in determining minimum random testing rates for the following year.

As shown in the next graph, the drug violation rate dropped for the fifth consecutive year, in 2001. It dropped below 1.0 for the first time (to 0.89, a drop of 15 percent from 2000 and almost 45 percent since 1996). If it is below 1.0 again in 2002, the FTA Administrator will have the option to reduce the drug test quota from 50 percent to 25 percent for 2003. As shown in the second graph, however, the rate for contractors was still quite high at 1.76. Though it did drop for the third consecutive year, the contractor rate dropped by less than 5 percent in 2001 and has dropped by only 13 percent since 1998. High rates for contractors may dissuade the Administrator from lowering the random drug testing rate even if the overall drug violation rate remains below 1.0 in 2002. The rate for transit agency employees also dropped for at least the third consecutive year. The transit rate dropped by 15 percent in 2001 (to 0.72 percent), and has dropped by nearly 30 percent since 1998.

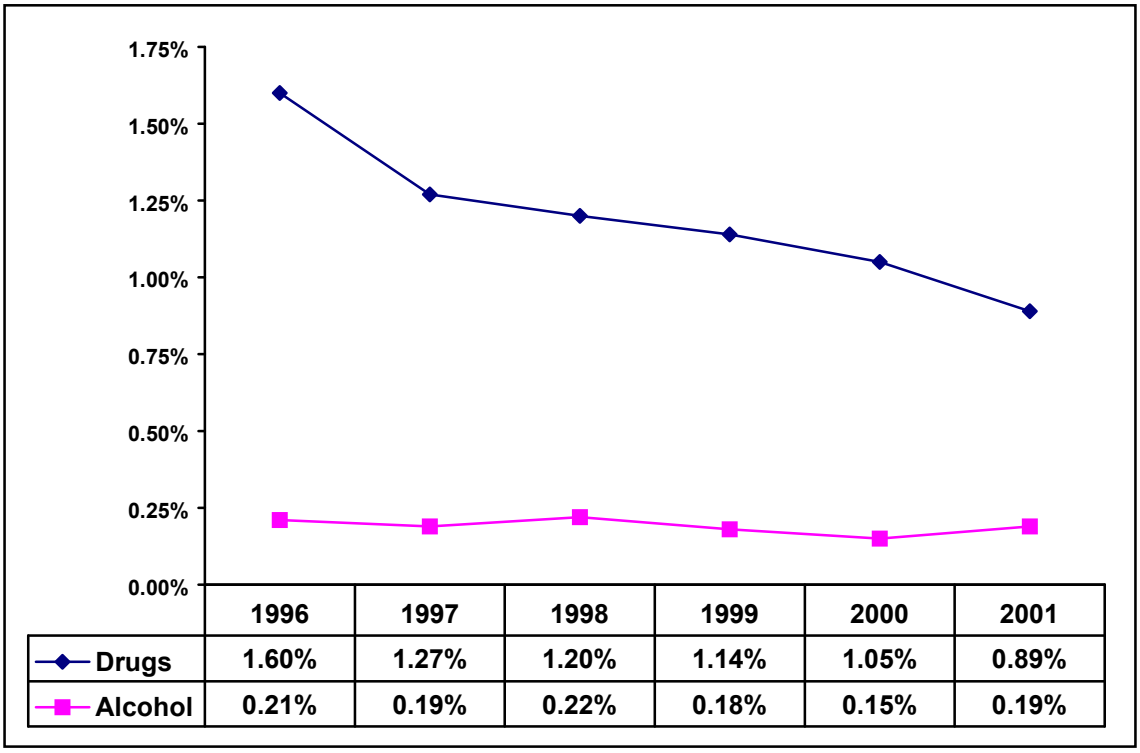
As also shown in the next graph, the random alcohol violation rate rose by more than 25 percent in 2001 (to 0.19 percent), but was still nearly 10 percent below the rate for 1996. The alcohol violation rate also remained well below the

[8] A positive alcohol test is a specimen with a confirmed breath alcohol level of at least 0.04.

[9] For clarity in presenting the test results, the terms "violation rate" and "positive rate" are used differently in this report than in Part 655. See the text box in Section 2.3 for a full explanation.

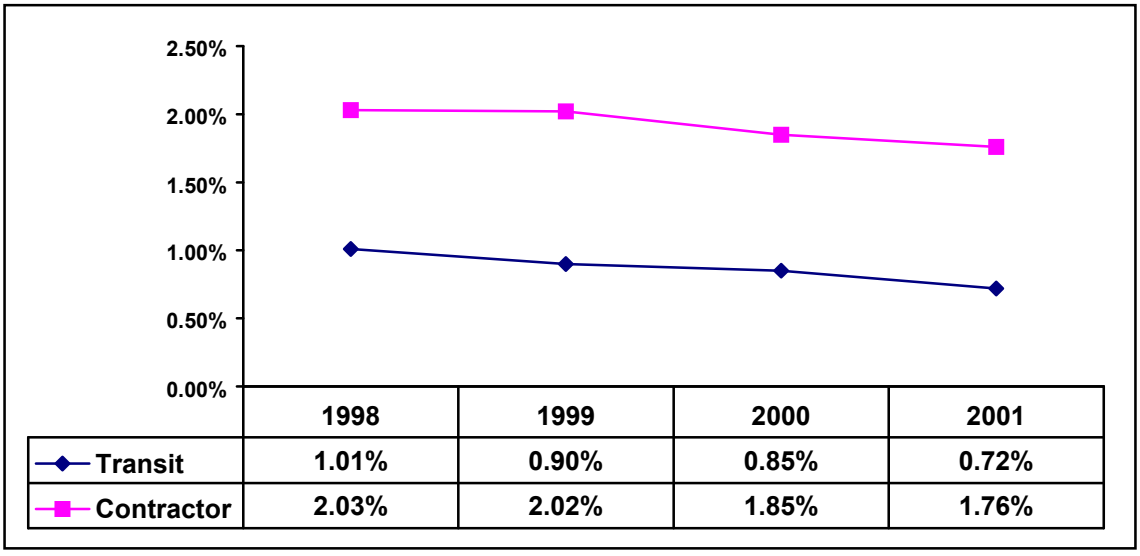
threshold of 0.50 percent for the testing rate to be raised from 10 to 25 percent. As shown in the third graph in this section, the alcohol rate for contractors rose by nearly 50 percent in 2001 and has more than doubled since 1996, but was still well below 0.50 percent (at 0.34 percent). The alcohol rate for transit agency employees rose for the first time since 1996 (by nearly 15 percent to 0.16 percent), but was still more than 25 percent lower than the 1996 rate.

Random Drug and Alcohol Test Violation Rate: 1996 to 2001



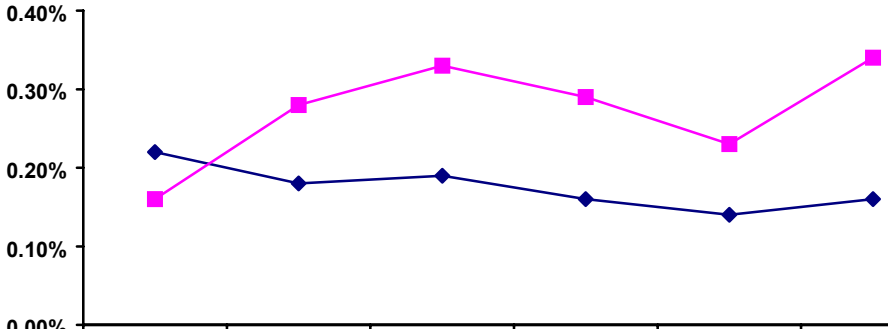
	1996	1997	1998	1999	2000	2001
Drugs	1.60%	1.27%	1.20%	1.14%	1.05%	0.89%
Alcohol	0.21%	0.19%	0.22%	0.18%	0.15%	0.19%

Random Drug Test Violation Rate by Employer Type: 1998 to 2001



	1998	1999	2000	2001
Transit	1.01%	0.90%	0.85%	0.72%
Contractor	2.03%	2.02%	1.85%	1.76%

Random Alcohol Test Violation Rate by Employer Type: 1996 to 2001

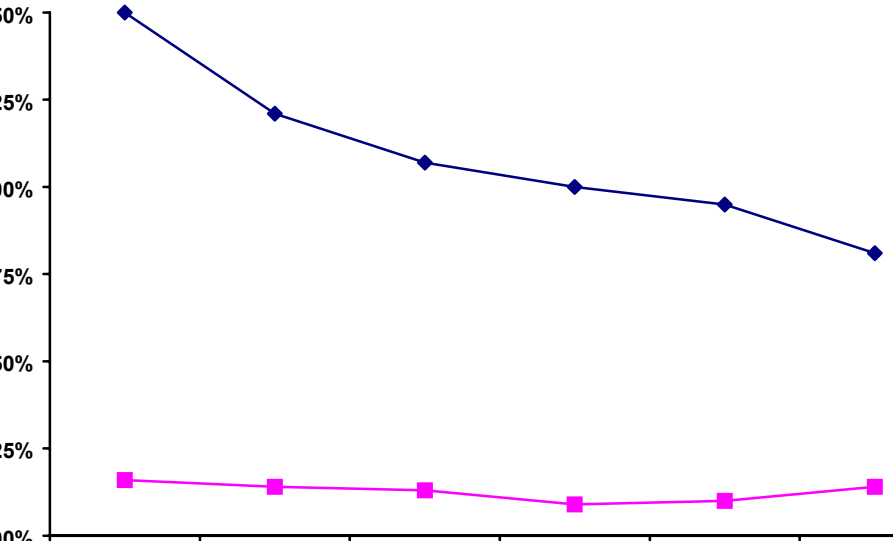


	1996	1997	1998	1999	2000	2001
Transit	0.22%	0.18%	0.19%	0.16%	0.14%	0.16%
Contractor	0.16%	0.28%	0.33%	0.29%	0.23%	0.34%

5.2 Random Positive Rates

The six-year trends for both the drug and alcohol positive rates were very similar to their respective violation rate trends, with slightly lower positive rates than violation rates for each year. The only difference in the trends is that the positive alcohol rate rose for the second consecutive year in 2001 after dropping each year before 2000, as shown below, whereas the alcohol violation rate rose in 1998 and 2001 and dropped in 1997, 1999, and 2000.

Random Drug and Alcohol Test Positive Rates: 1996 to 2001

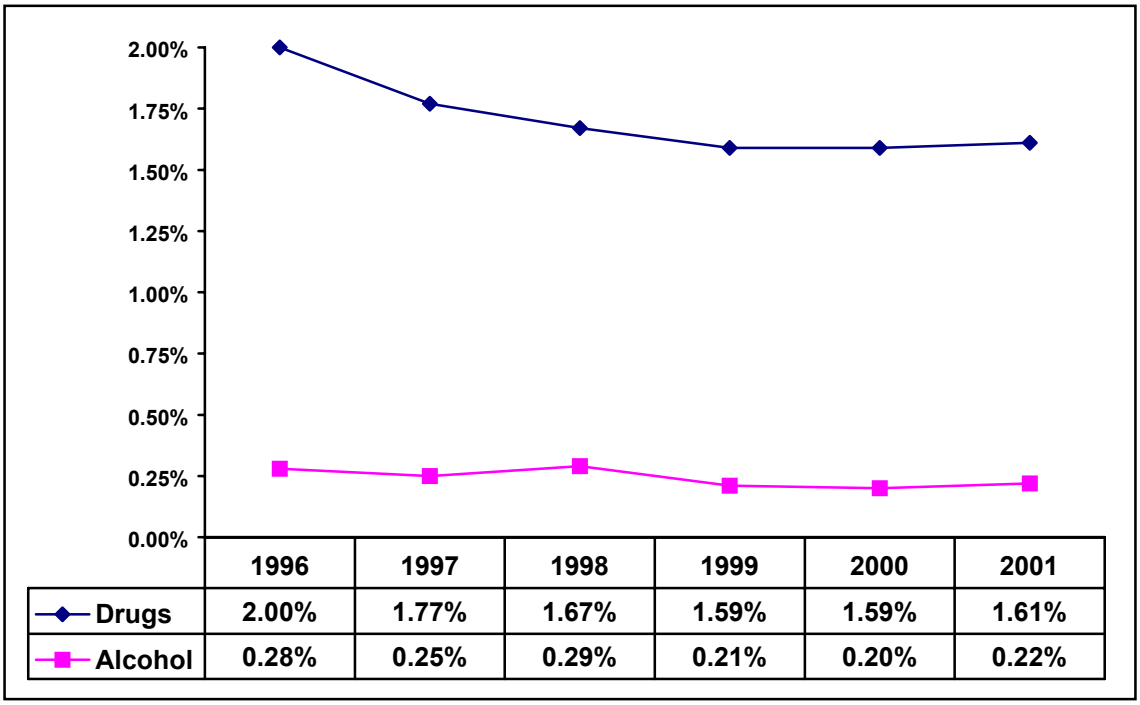


	1996	1997	1998	1999	2000	2001
Drugs	1.50%	1.21%	1.07%	1.00%	0.95%	0.81%
Alcohol	0.16%	0.14%	0.13%	0.09%	0.10%	0.14%

5.3 Combined Positive Rates for All Test Results

The combined positive rates for all of the six required test circumstances cited in Chapter 2—random, post-accident, reasonable suspicion, pre-employment, return to duty, and follow-up—have been higher for both drugs and alcohol than the random violation rates for each of the six years from 1996 to 2001. The fact that the random rate that includes refusals has been lower every year for both drugs and alcohol than the combined rate for all tests, including random, that does not include refusals is conclusive evidence that random testing is an effective deterrent to drug use and alcohol misuse. Furthermore, as shown below, the combined rate for drugs has leveled since 1999 (and even increased slightly in 2001) while the random violation rate for drugs continued to decrease significantly in both 2000 and 2001.

Total Drug and Alcohol Test Positive Rates for All Six Test Types Combined: 1996 to 2001



	1996	1997	1998	1999	2000	2001
Drugs	2.00%	1.77%	1.67%	1.59%	1.59%	1.61%
Alcohol	0.28%	0.25%	0.29%	0.21%	0.20%	0.22%

Appendix A. Glossary

Accident: An occurrence associated with the operation of a vehicle, if as a result:

(1) A person dies;

(2) A person suffers a bodily injury and immediately receives medical treatment away from the scene of the accident;

(3) With respect to an occurrence in which the mass transit vehicle involved is a bus, electric bus, van, or automobile, one or more vehicles incurs disabling damage as the result of the occurrence and is transported away from the scene by a tow truck or other vehicle; or

(4) With respect to an occurrence in which the mass transit vehicle involved is a rail car, trolley car, trolley bus, or vessel, the mass transit vehicle is removed from revenue service.

Alcohol: The intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols including methyl or isopropyl alcohol.

Alcohol concentration: The alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by a breath test.

Alcohol confirmation test: A subsequent test using an EBT, following a screening test with a result of 0.02 or greater, that provides quantitative data about the alcohol concentration.

Alcohol positive: See "confirmed positive."

Screening test: An analytic procedure to determine whether an employee may have a prohibited concentration of alcohol in a breath or saliva specimen.

Alcohol use: The consumption of any beverage, mixture or preparation, including any medication containing alcohol.

Anti-drug program: A program to detect and deter the use of prohibited drugs as required by FTA regulations.

Armed security personnel: Function including any person who provides security to protect persons or property, and any person who carries a firearm.

Canceled or invalid test: In drug testing, a drug test that has been declared invalid by a Medical Review Officer (MRO). In alcohol testing, this would be a test that is deemed to be invalid. It is neither a positive nor a negative test.

CDL/non-revenue vehicle: Job category including any transit employee who holds a Commercial Driver's License (CDL), performs a function requiring a CDL, and is not included in any other job category.

Confirmed positive: A specimen with a confirmed breath alcohol level of at least 0.04

Consortium: An entity, including a group or association of employers, operators, recipients, subrecipients, or contractors, which provides drug testing services and acts on behalf of the employer.

Contractor: A person or organization that provides a service for a recipient, subrecipient, employer, or operator consistent with a specific understanding or arrangement. The understanding can be a written contract or an informal arrangement that reflects an ongoing relationship between the parties.

Covered employee: A person, including an applicant, transferee, and certain volunteers who perform a safety-sensitive function for a recipient, subrecipient, employer, or operator.

DOT: United States Department of Transportation.

DOT agency: An agency (or "operating administration") of the U.S. Department of Transportation administering regulations requiring drug testing.

Drug confirmation (or confirmatory) test: A second analytical procedure performed on a urine specimen to identify and quantify the presence of a specific drug or drug metabolite.

Drug metabolite: The specific substance produced when the human body metabolizes a given prohibited drug as it passes through the body and is excreted in urine.

Drug positive: See “verified positive.”

Drug screening test (or initial test): An immunoassay screen of a urine specimen (collected in accordance with 49 CFR Part 40 and analyzed in a DHHS-approved laboratory), to eliminate "negative" urine specimens from further analysis. Positive specimens are analyzed again (via a confirmation test) to verify and quantify the presence of a specific drug or drug metabolite.

Education: Efforts that include the display and distribution of informational materials, a community service hotline telephone number for employee assistance, and the transit entity policy regarding drug use and alcohol misuse in the workplace.

Employee: A person designated in a DOT agency regulation as subject to drug testing and/or alcohol testing. "Employee" includes an applicant for employment.

Employer: A recipient or other entity that provides mass transportation services or performs a safety-sensitive function for such recipient or other entity. This term includes subrecipients, operators, and contractors.

Follow-up test: Required of employees who have returned to duty in a safety-sensitive position following a positive drug test result or an alcohol test result of ≥ 0.04. A minimum of six tests must be performed during the first 12 months after the employee returns to duty.

FTA: The Federal Transit Administration, an agency of the U.S. Department of Transportation.

Large operator: A recipient or subrecipient primarily operating in an area with a population of 200,000 or more.

Medical review officer (MRO): A licensed physician (Doctor of Medicine or Doctor of Osteopathy) responsible for receiving laboratory results generated by an employer's drug testing program, who has knowledge of substance abuse disorders and has appropriate medical training to interpret and evaluate a person's confirmed positive test result together with appropriate medical history and any other relevant biomedical information.

Part 40: US DOT's testing regulation titled *Procedures for Transportation Workplace Drug and Alcohol Testing Programs*, which was enacted in 1994 and revised in 2000.

Part 655: FTA's testing regulation titled *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*. In was enacted in 2001 to expand the minimum requirements of the revised Part 40 and to combine the previous FTA testing regulations enacted in 1994: Part 653, *Prevention of Prohibited Drug Use in Transit Operations*, and Part 654, *Prevention of Alcohol Misuse in Transit Operations*.

Positive test rate: Used in this report, for clarity in presenting the test results, to refer to the number of confirmed alcohol positives per total number of screens collected or the number of verified drug positives per total number of specimens collected. This definition differs from the regulatory definition (in Part 655), where "positive rate" refers to the number of drug test positives and refusals combined per person selected to take a random test.

Post-accident testing: Required testing for prohibited drugs and alcohol, following certain mass transit accidents. These accidents include those in which a death occurs, medical treatment away from the scene is required, or one or more of the vehicles involved incurs disabling damage.

Pre-employment testing: Testing that is designed to identify applicants who have consumed a prohibited drug in the recent past. Employers are prohibited from hiring an applicant for a safety-sensitive function unless they have a verified negative drug test.

Random testing: Identifies employees who are using drugs or misusing alcohol by using an unpredictable and unannounced testing pattern. Safety-sensitive employees are selected based on a scientifically valid random-number selection method. It is considered by FTA to be the most effective deterrent to drug use and alcohol misuse.

Random testing rate: The rate at which each employer must conduct random tests each year. The number of random drug tests must equal a percentage (specified by FTA each year) of the number of the employer's safety-sensitive employees. In 2001, the drug testing rate was 50 percent, and the alcohol testing rate was 10 percent. These rates remained the same in 2002. They can be amended (per Part 655.45) by the FTA Administrator based on the combined percentage of positive tests plus test refusals.

Reasonable suspicion testing: Required when an employer has reasonable suspicion that an employee has used a prohibited drug or has misused alcohol as defined in the regulations. Reasonable suspicion testing must be based on specific, contemporaneous, articulable observations made by a trained supervisor concerning the appearance, behavior, speech, or body odor of a safety-sensitive employee.

Recipient: An entity receiving financial assistance under Section 5307, 5309, or 5311 of the Federal Transit Act or under Section 103(e)(4) of Title 23 of the U.S. Code. A *direct recipient* receives funding directly from FTA, i.e., most large transit agencies, state governments, and metropolitan planning organizations (MPOs). An in*direct recipient* receives funding from a state government or from an MPO.

Refusal to submit to an alcohol test: A covered employee fails to provide adequate breath for testing without a valid medical explanation.

Refusal to submit to a drug test: A covered employee fails to provide a urine sample as required by 49 CFR Part 40, without a valid medical explanation, after the employee has received notice of the requirement to be tested or engages in conduct that clearly obstructs the testing process.

Return to duty testing: Required before an employee is allowed to return to duty to perform a safety-sensitive function following a verified positive drug test, an alcohol result of 0.04 or greater, a refusal to submit to a test, or any other violation of the regulation.

Revenue vehicle control/dispatching: Job function including any person who controls the dispatch or movement of revenue service vehicles.

Revenue vehicle operations: Function including any person who operates or works as a crewman on revenue service vehicles at any time.

Rural operator: A subrecipient of 5311 funding primarily operating in an area with a population of less than 50,000.

Safety-sensitive function: Any of the following duties:

- Operating a revenue service vehicle, including when not in revenue service;
- Operating a non-revenue service vehicle, when required to be operated by a holder of a Commercial Driver's License (CDL);
- Controlling dispatch or movement of a revenue service vehicle;
- Maintaining a revenue service vehicle or equipment used in revenue service, unless the recipient receives section 5311 funding and contracts out such services; and/or
- Providing security and carrying a firearm.

Small operator: A recipient or subrecipient primarily operating in an area with a population of 50,000 or greater and less than 200,000.

Substance abuse professional (SAP): A licensed physician (Doctor of Medicine or Doctor of Osteopathy), or a licensed or certified psychologist, social worker, employee assistance professional, or addiction counselor (certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission), with knowledge of and clinical experience in the diagnosis and treatment of drug and alcohol-related disorders.

Transit agency: The public entity that receives the Federal grant (direct grant recipient), whether or not that recipient provides mass transit services directly.

Vehicle and equipment maintenance: Function including any person repairing or maintaining revenue service vehicles or other equipment used in revenue service.

Verified positive: A drug test result reviewed by an MRO and determined to have evidence of prohibited drug use.

Violation rate: Used in this report, for clarity in presenting the test results, to refer to the number of test positives and refusals combined per person selected to take a random test:

Drug violation rate = (verified positives + refusals) ÷ (specimens collected + refusals)

Alcohol violation rate = (confirmed positives + refusals) ÷ (screens collected + refusals)

This definition differs from the regulatory definition (in Part 655), where "violation rate" refers only to alcohol testing. The concept of a drug violation rate is referred to as the "positive rate" in Part 655.

Appendix B. FTA Regions

The Federal Transit Administration (FTA) has ten regions, which are identified below. The data provided by these regions have facilitated the comparison of drug and alcohol test results and the identification of regional trends.

U.S. States and Territories Reporting to the 10 FTA Regions

Region 1	Region 2	Region 3	Region 4	Region 5
Connecticut	New Jersey	Delaware	Alabama	Illinois
Maine	New York	District of Columbia	Florida	Indiana
Massachusetts	Puerto Rico	Maryland	Georgia	Michigan
New Hampshire	Virgin Islands	Pennsylvania	Kentucky	Minnesota
Rhode Island		Virginia	Mississippi	Ohio
Vermont		West Virginia	North Carolina	Wisconsin
			South Carolina	
			Tennessee	

Region 6	Region 7	Region 8	Region 9	Region 10
Arkansas	Iowa	Colorado	American Samoa	Alaska
Louisiana	Kansas	Montana	Arizona	Idaho
New Mexico	Missouri	North Dakota	California	Oregon
Oklahoma	Nebraska	South Dakota	Guam	Washington
Texas		Utah	Hawaii	
		Wyoming	Nevada	
			Northern Mariana Islands	

Appendix C.
Accident and Fatality Data Associated with Positive Post-Accident Tests by FTA Region

As mentioned in Section 3.2, the number of accidents in which a transit agency employee or contractor tested positive in an FTA post-accident test cannot be expressed as a rate, and the data reported cannot be normalized by FTA region. The number of accidents, fatal accidents, and total fatalities that were reported are presented by region in the table at right. The numbers for non-fatal accidents are subdivided by employer type and by employer size, respectively, in the two tables below. Because no fatal accidents were reported in 2001, the columns with fatality data are not included in those tables.

Accidents and Fatalities Resulting in Post-Accident Positives by FTA Region

	Drugs			Alcohol		
Region	Non-Fatal Accidents	Fatal Accidents	Total Fatalities	Non-Fatal Accidents	Fatal Accidents	Total Fatalities
1	3	0	0	0	0	0
2	14	0	0	2	0	0
3	6	0	0	2	0	0
4	4	0	0	1	0	0
5	36	0	0	0	0	0
6	18	0	0	1	0	0
7	0	0	0	0	0	0
8	8	0	0	0	0	0
9	29	0	0	2	0	0
10	2	0	0	0	0	0

It should be noted that one person may test positive for both drugs and alcohol and that most employers test the employee for both drugs and alcohol. Thus, the numbers for drugs and alcohol cannot be added to obtain the total number of persons who tested positive. Data were not reported on the total number of persons testing positive in a post-accident test or for persons testing positive for both drugs and alcohol.

Non-Fatal Accidents Resulting in Post-Accident Positives by FTA Region and Employer Type

	Drugs		Alcohol	
Region	Transit	Contractor	Transit	Contractor
1	3	0	0	0
2	8	6	2	0
3	5	1	2	0
4	2	2	1	0
5	27	9	0	0
6	3	15	0	1
7	0	0	0	0
8	2	6	0	0
9	14	15	0	2
10	1	1	0	0

Non-Fatal Accidents Resulting in Post-Accident Positives by FTA Region and Employer Size

	Drugs			Alcohol		
Region	Large	Small	Rural	Large	Small	Rural
1	3	0	0	0	0	0
2	14	0	0	2	0	0
3	6	0	0	2	0	0
4	3	1	0	1	0	0
5	35	0	1	0	0	0
6	16	2	0	1	0	0
7	0	0	0	0	0	0
8	7	0	1	0	0	0
9	29	0	0	2	0	0
10	2	0	0	0	0	0