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# Drug and Alcohol Testing Results 1996 Annual Report

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Office of Safety and Security

## **NOTICE**

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## **PREFACE**

This report represents the culmination of an annual process of data collection and analysis, data base development, and report writing. This process required the efforts of many dedicated people. Thanks to Judy Meade, Director of FTA's Office of Safety & Security, who provided oversight and technical review of the project, and her staff, including Patricia Grant, who fielded calls and provided guidance to the reporting employers. Thank you also to Nora Burke and Dorothy Nicholas at the Volpe National Transportation Systems Center for their technical support, guidance, and review. Science Applications International Corporation (SAIC) prepared this report with the following principle authors: Jean Ault, Brad Center, Ruth David, Steve Michener, and Glenn Wilson.

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

This report presents the results of mandatory drug and alcohol testing conducted by transit systems and their contractors receiving funds from the Federal Transit Administration (FTA). Under the Omnibus Transportation Employee Testing Act passed by Congress in 1991, the FTA was required to establish regulations for drug and alcohol testing of transit employees performing safety-sensitive functions. These regulations require that each recipient 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 annually. This 1996 Annual Report summarizes the reported results of drug and alcohol tests from all such transit systems. The 1995 Annual Report summarized the reported results of drug and alcohol tests from only those transit systems that operated primarily in areas of 200,000 or more in population. These “large operators” were required to begin their drug and alcohol testing programs on January 1, 1995; all other operators were required to have programs in place as of January 1, 1996.

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 Federal transit funding to the recipient. Because a recipient may not always directly provide mass transit services, the FTA uses the term “operator” or “employer” to describe those who actually provide transit services. The direct recipient of FTA funds, however, is the entity legally responsible to the FTA for compliance.

### **DISTRIBUTION OF TRANSIT SYSTEMS AND CONTRACTORS**

The FTA received drug and alcohol reporting forms for calendar year 1996 from 2,287 individual employers representing 1,580 operators (299 large operators and 1,281 small operators) and 707 contractors. Approximately 69 percent of all employers reported no positive drug test results, and 96 percent of employers reported no alcohol test results greater than or equal to 0.04 percent. Contractors submitted a greater percentage of forms with at least one positive drug test result than did transit systems, and transit systems submitted a greater percentage of forms with at least one alcohol test result greater than 0.04 percent than did contractors.

The largest number of employees performing safety-sensitive functions are engaged in revenue vehicle operation, followed by revenue vehicle and equipment maintenance. Revenue vehicle control/dispatch, commercial driver’s license (CDL)/non-revenue vehicle, and armed security personnel together make up less than 13 percent of the overall labor force (transit systems and contractors). For large operators, contractors comprise a relatively small percent of the total number of FTA-covered employees at 11.49 percent. For small operators, contractors comprise a higher percent of the total number of FTA-covered employees at 38.57 percent.

## DRUG TEST RESULTS

All employers must establish an anti-drug program that encompasses testing and training for employees and supervisors performing safety-sensitive functions. Supervisors are trained to recognize the signs and symptoms of prohibited drug use. The FTA's rule specifies that safety-sensitive employees may not use any of five prohibited substances (or their metabolites): marijuana, cocaine, opiates (e.g., heroin, morphine, codeine), amphetamines (e.g., racemic, amphetamine, dextroamphetamine, and methamphetamine), or phencyclidine (PCP).

If a covered employee has a verified positive result from a drug test, the employee must be removed from the safety-sensitive position, be informed of available educational and treatment programs, and be referred to a substance abuse professional to determine whether the employee has a drug problem. If company policy allows, the regulations state that the employee must complete a course of treatment prescribed by the substance abuse professional and take a return-to-duty drug test with a verified negative result to return to a safety-sensitive position.

The 1996 drug-testing program performed by large and small transit employers revealed the following major findings:

A total of 108,347 specimens were collected for random drug testing. Of that figure, 1,620 specimens tested positive for one or more of the five prohibited drugs. Random drug testing accounted for 43.89 percent of the positive specimens (of 3,691 total positive specimens).

The overall positive random test rate was 1.50 percent industry-wide, as shown in Exhibit ES-1. The positive random test results were 1.42 percent for transit systems and 1.84 percent for contractors. The 1995 random rate of positive test results was 1.73 percent.

Employers	Number of Specimens	Number Positive	Percent Positive
Transit Systems	88,114	1,247	1.42%
Contractors	20,233	373	1.84%
Totals	108,347	1,620	1.50%

There was little disparity in the percent of random drug positives between large and small operators (1.48% and 1.55%, respectively).

The FTA's regulation requires that the number of random drug tests conducted must equal at least 50 percent of the total number of safety-sensitive employees. Transit systems had a higher rate of compliance with the 50 percent drug-testing requirement than did contractors. Approximately 56.76 percent of the transit systems randomly tested a number equal to at least 50 percent of their covered employees for drugs. In comparison, approximately 52.20 percent of the contractors met the testing requirement. Large operators met the requirement more often than did small operators (61.38% and 53.27%, respectively). A number of employers joined consortia to increase the efficiency of the testing process. As members of a consortium, their employees were included in a larger pool of employees. The consortium is required to test the entire pool at

the 50 percent (drug) and 25 percent (alcohol) levels; thus, each employer may not have achieved the required levels of testing individually.

Of the six drug test types (pre-employment, random, post-accident, reasonable suspicion, return-to-duty, and follow-up), the highest percent of positive specimens was for reasonable suspicion testing (6.84). Contractors reported positive results using reasonable suspicion testing at a higher rate than did transit systems (15.87% vs. 5.10%).

Random drug testing returned the lowest overall percent of positive results (1.50%).

There was some variation in the percent of positive random tests across employee categories. The lowest rate was 0.57 percent for armed security personnel, and the highest was 1.76 percent for CDL/non-revenue vehicle operators.

Marijuana and cocaine were detected most frequently in the specimens that tested positive for drugs. Of the 3,691 positive specimens, 53.78 percent tested positive for marijuana and 38.66 percent tested positive for cocaine.

There were 239 reportable accidents that resulted in a positive post-accident drug test (166 from transit systems; 73 from contractors). There was one fatality reported as resulting from these accidents.

## **ALCOHOL TEST RESULTS**

Transit systems are required to establish and conduct an alcohol misuse prevention program in which employees performing safety-sensitive functions are tested for the misuse of alcohol and supervisors are trained to recognize the signs and symptoms of alcohol misuse. Employees are subject to five types of alcohol tests: random, reasonable suspicion, post-accident, return-to-duty, and follow-up. In addition, employers may not allow safety-sensitive employees to consume alcohol under four specific circumstances: (1) 4 hours before performing a safety-sensitive function; (2) while performing a safety-sensitive function; (3) after a fatal accident, unless the employee has received a post-accident test or 8 hours have elapsed, whichever occurs first; or (4) after a nonfatal accident unless the employee's involvement was completely discounted as a contributing factor to the accident, the employee has been tested, or 8 hours have elapsed.

Alcohol screening tests may be conducted with a saliva testing device, an evidential breath-testing (EBT) device, or a non-EBT device. A confirmation test must be conducted using an EBT device if the result of a screening test is an alcohol concentration of 0.02 percent or greater. The alcohol concentration level is the alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath. An employer may only take disciplinary action based on the results of a confirmation test.

An employee with an alcohol concentration of 0.02 or greater but less than 0.04 must be removed from duty for 8 hours or until a retest shows an alcohol concentration of less than 0.02.

An employee with an alcohol concentration of 0.04 or greater must be prohibited from performing any safety-sensitive duties, removed from his/her safety-sensitive position, and be evaluated by a substance abuse professional to determine whether the employee has an alcohol problem. To return to a safety-sensitive position, the employee must properly complete a course of treatment prescribed by the substance abuse professional and pass a return-to-duty alcohol test.

The 1996 alcohol-testing program performed by large and small transit employers revealed the following findings:

- A total of 62,618 random alcohol screening tests were conducted. Of that figure, 101 confirmation tests resulted in a 0.04 percent or greater alcohol concentration level (0.16%).
- The FTA alcohol-testing rule includes a definition for the violation rate. The definition describes the violation rate as the number of random tests resulting in a concentration of 0.04 percent or greater plus the number of employees who refused a random test, divided by the total number of random tests administered plus the number of employees who refused a random test. The violation rate for 1996 for all employers (transit systems and contractors) is 0.21 percent.
- The percent of random tests that resulted in a 0.04 or greater alcohol concentration level was 0.16 industry-wide, as shown in Table ES-2. The rate for transit systems was 0.17 percent. For contractors, the rate was 0.11 percent. In 1995, the random rate was 0.17 percent.

Employer	Number of Screens	Number Positive	Percent $\geq$ 0.04
Contractors	11,280	12	0.11%
Transit Systems	51,338	89	0.17%
Totals	62,618	101	0.16%

- The FTA's regulations require that the number of random alcohol tests conducted must equal 25 percent of the total number of safety-sensitive employees. Transit systems and contractors had a similar rate of compliance with this requirement at 62.35 and 62.66 percent, respectively. Large operators met the requirement more often than did small operators (64.80% and 61.58%, respectively).
- Of the five required alcohol test types, the highest percent of test results at 0.04 or greater was for reasonable suspicion testing (8.22%). The percent of results at 0.04 or greater for the other four test types ranged from 0.13 to 0.39 percent. Contractors returned alcohol concentrations at 0.04 or greater during reasonable suspicion testing more often than transit systems (21.14% vs. 6.52%).
- The FTA suspended the requirement for pre-employment alcohol testing on May 10, 1995. Nonetheless, 7,068 screening tests were reported with only 2 positive results (0.03%). These

numbers are not reflective of industry-wide pre-employment testing because these tests were not required and were reported voluntarily.

- Overall, the percent of random alcohol tests with results of 0.04 or greater for each employee category was at or below 0.30 percent. The lowest percent was 0.00 for armed security personnel, and the highest percent was 0.27 percent for revenue vehicle and equipment maintenance employees.
- There were 16 accidents reported that resulted in a post-accident alcohol test result of 0.04 or greater. There were no fatalities resulting from these accidents.

## **COMPARISON OF DRUG AND ALCOHOL RESULTS**

A comparison of the 1996 drug and alcohol testing programs performed by large transit employers revealed the following findings:

- Random testing revealed a higher percent of drug tests with positive results than alcohol tests with results of 0.04 or greater (1.50% vs. 0.16%). Results of random drug testing in transit systems show a positive rate of 1.42 percent, while the rate for alcohol tests with results of 0.04 or greater was 0.17 percent. The positive drug testing result rate for contractors was 1.84 percent, whereas the rate for random alcohol testing results at 0.04 or greater was 0.11 percent.
- CDL/non-revenue vehicle operators, revenue vehicle operators, and equipment maintenance employees had the highest percent of random positive drug test results with 1.76 percent, 1.63 percent, and 1.52 percent, respectively. Vehicle and equipment maintenance employees had the highest random alcohol test results at 0.04 or greater (0.27%), followed by CDL/Non-revenue vehicle operators and revenue vehicle operators with 0.14 percent each.
- A total of 12 employers reported that they had a total of 24 employees who tested positive for drugs and alcohol at the same time.

## **COMPARISON OF LARGE AND SMALL OPERATORS**

Almost two-thirds (64.74%) of safety-sensitive employees who worked for large operators were revenue vehicle operators, whereas more than three-quarters (75.30%) of safety-sensitive employees who worked for small operators were revenue vehicle operators.

Across all employee categories, large operators tested at 0.04 or greater for random alcohol tests at 0.19 percent. Small operators tested at 0.04 or greater 0.07 percent of the time. However, small operators were positive for random drug tests more often than large operators (1.55% vs. 1.48%).

The reported data show that large operators met the random testing requirements for drugs more often than small operators (57.22% vs. 46.48%). Additionally, the data show that large operators also met the testing requirement for alcohol more often than small operators (55.79% vs.

47.29%). Federal regulations allow employers to use a consortium to perform drug and alcohol testing. Each consortium is required to test a number equal to 50% of the entire pool for drugs and a number equal to 25% of the entire pool for alcohol. Because the consortium is performing random testing on its entire pool, individual employers may not achieve the required minimum testing rates.

## **COMPARISON OF 1995 AND 1996 RESULTS**

The percent of positive random drug test results and the percent of alcohol test results greater than or equal to 0.04 decreased from 1995 to 1996. In 1995, random alcohol testing detected results of 0.04 or greater 0.17 percent of the time. In 1996, random alcohol testing detected results of 0.04 or greater 0.16 percent of the time. In 1995, random drug testing detected positive results 1.73 percent of the time. In 1996, random drug testing detected positive results 1.50 percent of the time.

Most employee categories saw a reduction in the percent of random positive test results for drugs and alcohol results of 0.04 percent or greater, but the CDL/non-revenue vehicle operators saw an increase in both. In 1995, the percent of random drug positives and alcohol levels of 0.04 percent or greater detected for CDL/non-revenue vehicle operators was 1.55 and 0.07 percent, respectively. In 1996, that percent increased to 1.76 and 0.14 percent for alcohol and drugs, respectively.

Regions 2, 3, 5, 6, 7, 8, 9, and 10 showed decreases in the rate of positive random drug test results. Regions 3, 5, 7, and 9 showed decreases in the rate of random alcohol test results of 0.04 or greater.

## 1. INTRODUCTION

This report presents the results of mandatory drug and alcohol testing conducted by transit systems receiving funds from the Federal Transit Administration (FTA). Under the Omnibus Transportation Employee Testing Act passed by Congress in 1991, the FTA was required to establish regulations for drug and alcohol testing of transit employees performing safety-sensitive functions. The purpose of requiring transit agencies to implement drug and alcohol programs is to achieve a drug- and alcohol-free work force in the interest of the health and safety of employees and the public. This is the second annual report summarizing the results of drug and alcohol tests administered under the FTA regulations.

The FTA regulations require that recipients of specific FTA funds implement an anti-drug program to deter and detect the use of prohibited drugs by transit employees and to establish a program to prevent accidents and injuries resulting from the misuse of alcohol. Covered under these regulations are employees of transit systems that receive grant funds and employees of contractors to those transit systems. Large operators<sup>1</sup> were required to begin their drug and alcohol testing programs for calendar year 1995 and report the results of their testing in 1996. Small operators were required to begin their drug and alcohol testing programs for calendar year 1996 and report the results of their testing in 1997. The test results for both large and small operators for 1996 are the subject of this report.

### 1.1 Who Must Report

**Transit systems** that receive funding from the FTA sources listed in Figure 1-1 are required to have drug and alcohol testing programs.<sup>2</sup> Under FTA regulations, all recipients must implement the required drug and alcohol testing programs and must report the results of their programs to the

FTA annually. The results must be submitted to the FTA on specific Management Information System (MIS) forms approved by the Office of Management and Budget (OMB). A copy of these forms is included in Appendix B of this report. Recipients of 5310 (Section 16) funds only, are not required to comply with FTA drug and alcohol testing requirements, unless they provide contract services to recipients receiving Section 5307, 5309, and 5311 funds. In those instances, they must report as contractors.

Section 5307. Block Grants

Section 5309. Discretionary Grants and Loans

Section 5311. Financial Assistance for Other Than Urbanized Areas

**Figure 1-1. FTA Federal Funding Sources (1996)**

<sup>1</sup> Highlighted words and phrases are defined in Appendix A.

<sup>2</sup> The section numbers for the funding sources listed in Exhibit 1-1 are different than those listed on the FTA Management Information System forms. Section 5307 corresponds to Section 9, Section 5309 corresponds to Section 3, and Section 5311 corresponds to Section 18.

Not all recipients provide mass transit services directly. Instead, some rely on other public or private entities to provide services in whole or in part. In these cases, the direct recipient of FTA funds is legally responsible for assuring that any entity operating on its behalf is in compliance with FTA testing rules.

Transit authorities that receive funding directly from FTA must certify annually that they are in compliance with the drug and alcohol testing regulations. States must certify regulatory compliance on behalf of the transit authorities that receive FTA funding through a state agency.

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 Federal transit funding to the recipient. Because a recipient may not always provide transit services directly, the FTA uses the term “operator” or “employer” to describe those who actually provide transit services and who, therefore, must implement the FTA requirements.

## **1.2 Which Employees Must be Tested**

Under the FTA’s drug and alcohol testing rules, all employees who perform safety-sensitive functions must be tested for both drugs and alcohol. Safety-sensitive functions are defined as:

- Operating a revenue service vehicle, including operating the vehicle when it is not in revenue service;
- Operating a non-revenue service vehicle, when the vehicle is required to be operated by a driver who holds 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
- Carrying a firearm for security purposes.

Maintenance contractors (except for 5311 recipients’ contractors) that perform routine, ongoing repair, or maintenance work for FTA recipients and subrecipients must comply if their employees perform any of the identified safety-sensitive functions. In addition, supervisors who directly perform any of the safety-sensitive functions are also included in the testing requirements. Contractors that perform less routine maintenance activities, such as warranty, overhaul, component rebuilds, or rehabilitation work, are not included in the definition of safety-sensitive.

### 1.3 Types of Tests

Employees who perform safety-sensitive functions are subject to six different types of tests: (1) pre-employment (drug only), (2) random, (3) post-accident, (4) reasonable suspicion, (5) return to duty, and (6) follow-up. Prior to employment, each prospective employee, including individuals who are being transferred into safety-sensitive positions, must undergo pre-employment testing for drugs. Employees may not be hired unless they have a verified negative drug test result. The FTA suspended required pre-employment testing for alcohol on May 10, 1995, as a result of a U.S. Court of Appeals decision.

**Random testing** serves both detection and deterrent purposes, and must be unannounced and unpredictable. The tests must be based on a scientifically valid selection method. The total number of random tests conducted must equal at least 50 percent (for drugs) and 25 percent (for alcohol) of the total number of employees performing safety-sensitive functions. Transit systems have the option of joining a consortium, which is an entity that arranges testing services required by the regulations and that acts on behalf of the employers. If a transit system joins a consortium for random-number selection, the testing percent or annual rate may be calculated for the total number of safety-sensitive employees within the consortium. All safety-sensitive employees must have an equal chance of being selected for testing each time a selection is made, must be included in the selection pool, and must remain in the pool after being tested.

**Post-accident testing** is required for accidents where there is loss of life, and for nonfatal accidents that meet certain conditions unless the employee's conduct can be completely discounted as a contributing factor. When an accident occurs, the surviving safety-sensitive employee operating the vehicle must be tested, as well as any other safety-sensitive personnel not on the vehicle whose performance could have contributed to the accident. Tests must be administered as soon as possible but no later than 8 hours after the accident for alcohol and 32 hours for drugs.

**Reasonable suspicion testing** is conducted when an employer has reason to believe that an employee has used a prohibited drug or has misused alcohol as defined in the regulations. Reasonable suspicion testing requires probable linkage between behavior or events and substance abuse or misuse before a test can be conducted. This testing must be based on a specific, contemporaneous, articulate observation by a trained supervisor concerning the appearance, behavior, speech, or body odor of the safety-sensitive employee.

Employer's policy statements may permit an employee who violated the regulations (e.g., previously tested positive for drugs, had an alcohol result of  $\geq 0.04$ , refused to submit to a test) to return to duty to perform a safety-sensitive function upon completion of rehabilitation. The employee must, however, be evaluated by a substance abuse professional (SAP) and pass a return-to-duty test. The purpose of the return-to-duty test is to verify that the individual is presently free of alcohol and/or any prohibited drugs and is able to return to work without any undue safety concerns.

Once an employee is allowed to return to duty, the employee is subject to unannounced follow-up testing for at least 12 but no more than 60 months. The frequency of the testing is to be directed

by the SAP as long as a minimum of six tests are performed during the first 12 months following the employee's return to duty. Follow-up testing is separate from, and in addition to, random testing.

#### **1.4 Drug Testing Program Overview**

Transit systems must establish an anti-drug program that focuses on testing safety-sensitive employees and training for supervisors. FTA regulations specify that safety-sensitive employees may not use any of five prohibited substances (or their metabolites): marijuana, cocaine, opiates (e.g., heroin, morphine, codeine), amphetamines (e.g., racemic, amphetamine, extroamphetamine, and methamphetamine), or phencyclidine (PCP). Testing for any other drugs must be performed separately from the FTA test.

If a covered employee has a verified positive drug test result, the employee must be removed from his or her safety-sensitive position, be informed of the available educational and treatment programs, and be referred to a SAP. To return to a safety-sensitive position, the employee must properly complete the course of treatment prescribed by the SAP and take a drug test with a verified negative result.

#### **1.5 Alcohol Testing Program Overview**

Transit systems are required to establish and conduct an alcohol misuse prevention program in which employees performing safety-sensitive functions are tested for the misuse of alcohol. In addition, supervisors must be trained to recognize the signs and symptoms of alcohol misuse. Employers may not allow safety-sensitive employees to consume alcohol while on duty. There are four specific circumstances under which an employee is prohibited from consuming alcohol:

1. Four hours before performing a safety-sensitive function;
2. While performing a safety-sensitive function;
3. After a fatal accident unless a post-accident test has been administered, or 8 hours have elapsed (whichever occurs first); and/or
4. After a nonfatal accident unless the employee's involvement can be completely discounted as a contributing factor to the accident, the employee has been tested, or 8 hours have elapsed.

Alcohol **screening tests** may be conducted with a saliva testing device, an evidential breath testing device (EBT), or a non-EBT device. If the result of a screening test is an alcohol concentration of 0.02 or greater, a **confirmation test** must be performed. The confirmation test must be conducted using an EBT device, which is listed on the Conforming Product List (CPL) of the National Highway Traffic Safety Administration (NHTSA). The confirmation test must be conducted at least 15 minutes, but not more than 30 minutes, after the completion of the screening test. If the initial screening test and confirmation test results are not identical, the

confirmation test result is deemed the final result. An employer can take action based on the confirmation test results only.

An employee with an alcohol concentration of 0.02 or greater but less than 0.04 for a confirmation test must be removed from duty for at least 8 hours or until a retest conducted by the employer shows an alcohol concentration of less than 0.02. If an employer elects to remove the employee from duty for 8 hours, the employer is not required to administer an alcohol test before the employee resumes performing a safety-sensitive function unless the employee exhibits signs of alcohol misuse upon returning to work.

An employee with an alcohol concentration of  $\geq 0.04$  must be prohibited from performing any safety-sensitive functions, removed from his or her safety-sensitive position, and be referred to a SAP.

## **1.6 Methodology**

FTA published rules for drug and alcohol testing in the *Federal Register* of February 15, 1994, including the associated MIS forms that transit systems must use to submit their drug and alcohol test results. Appendix B in this document contains the MIS forms. FTA MIS reporting forms are also listed in the appendix of *The Implementation Guidelines for Drug and Alcohol Regulations in Mass Transit* and may be acquired from the FTA Office of Safety & Security. Each transit system is responsible for submitting its forms, as well as forms for all of its subrecipients and contractors. States are required to gather the forms of all their 5311 recipients and their contractors and submit them together. Separate forms must be used for each employer. The forms containing the 1996 calendar year information were due to the FTA by March 15, 1997.

Forms were reviewed for accuracy and completeness. Accuracy reviews focused on the internal consistency of the information reported. Mathematical checks were performed to ensure that the totals reported were supported by the information submitted. Completeness reviews focused on ensuring that all required information was provided. When questions concerning a form were identified, the employer was contacted to verify or correct the information reported or to provide missing information.

Once FTA was confident that the form verification process had been completed, the information on each form was entered into a database. The database underwent extensive quality control reviews during and after the data entry process. The database was then used to generate the figures and tables included in this report.

## **1.7. Organization of this Report**

This report contains six sections and three appendices. Section 2 presents general information from this reporting process, including how many employers reported. Sections 3 and 4 present drug and alcohol testing results, respectively. Section 5 presents a comparison of drug and alcohol testing results. Section 6 provides a comparison of 1995 and 1996 testing results for all of the employers reporting. To clarify the terms used throughout this report, Appendix A presents a

glossary of common terms. Appendix B provides a copy of the FTA MIS reporting forms. Appendix C provides a list of FTA regions.

## 2. GENERAL INFORMATION—DRUG AND ALCOHOL TEST RESULTS

This section provides drug and alcohol information submitted by transit systems and contractors submitting FTA Drug & Alcohol MIS forms to the FTA for 1996. The discussion presents data on the number of forms received and the distribution of workers by employee category, as well as the number of employees covered by the United States Coast Guard (USCG). This section also includes compliance of transit systems and contractors with the requirements for drug and alcohol random testing (percent of employees tested), their commitment to training employees and supervisors, and sources of FTA funds.

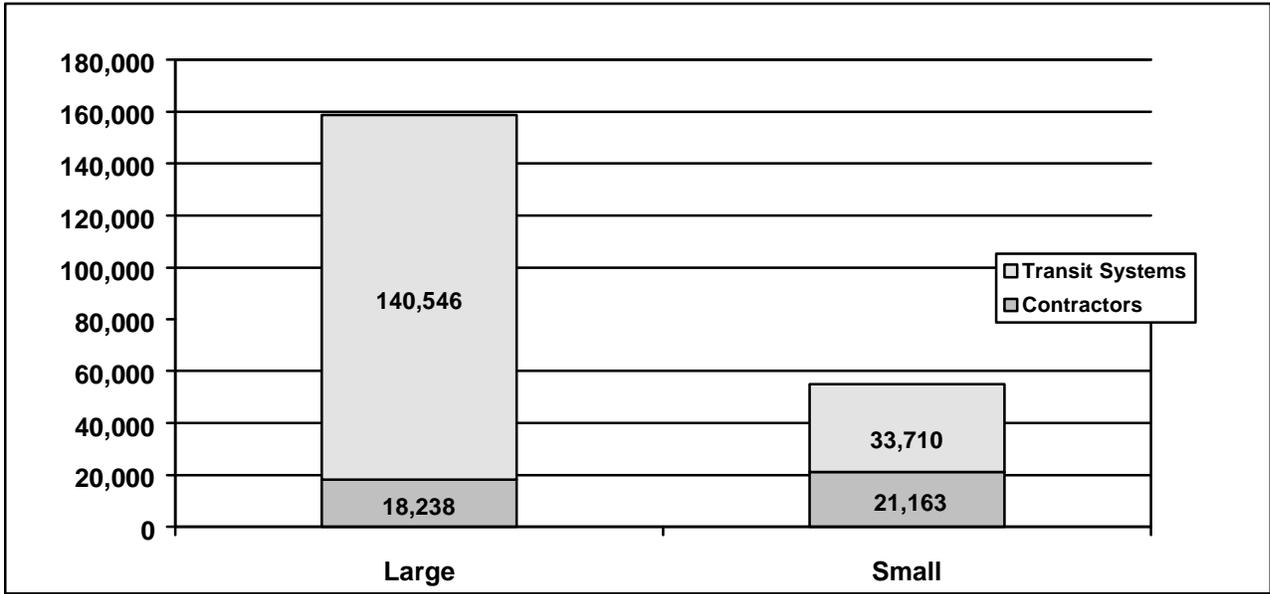
### 2.1 Distribution of Transit Systems and Contractors

For calendar year 1996, the FTA received drug and alcohol forms from 2,287 individual employers representing 1,580 operators (299 large operators and 1,281 small operators) and 707 contractors. Table 2-1 identifies the number of drug and alcohol forms received and shows the percentage of drug forms reporting a positive test result for at least one drug and the percentage of alcohol forms reporting an alcohol concentration of  $\geq 0.04$ .

Employer	Number of Forms Received		Percent A Positive Test Result for at Least One Drug	
	Drug Forms	Alcohol Forms	Drug Forms	Alcohol Forms
<b>Transit Systems</b>	1,580	1,580	24.56%	4.30%
<b>Contractors</b>	707	707	37.34%	3.82%
<b>Totals</b>	<b>2,287</b>	<b>2,287</b>	<b>30.95%</b>	<b>4.06%</b>

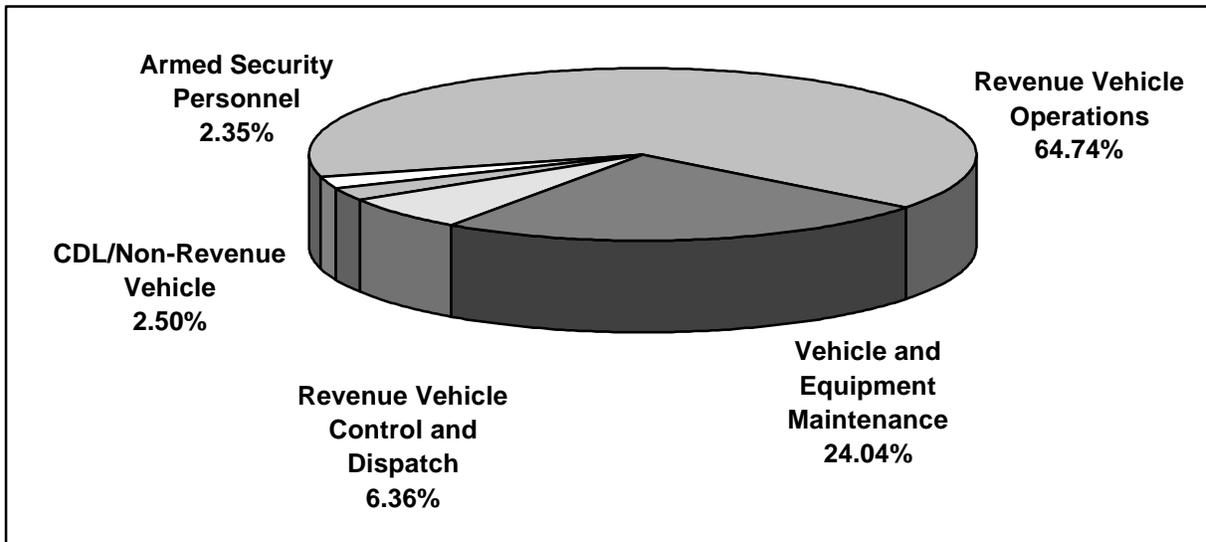
Approximately 75 percent of transit systems and 63 percent of contractors reported no positive drug test results in any of the testing categories. Approximately 96 percent of forms received by both transit systems and their contractors reported no alcohol test results of  $\geq 0.04$  in any of the testing categories.

Almost 75 percent of the FTA-covered employees worked in large systems in 1996. Figure 2-1 shows the number of contractor and transit system employees who worked in both large and small systems. A larger percentage of small operators rather than large operators were serviced by contractors (38.57% vs. 11.49%).

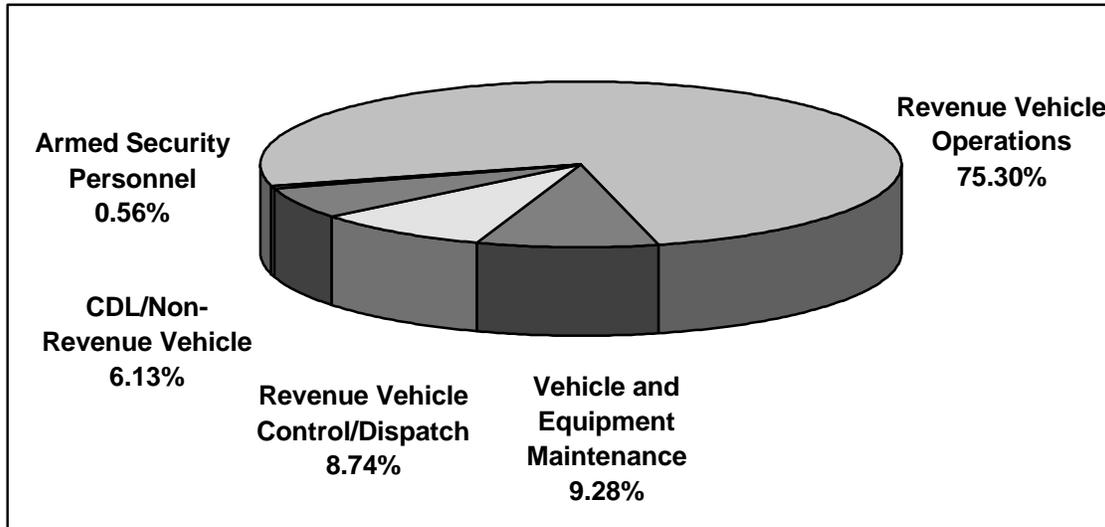


**Figure 2-1. Number of Transit System and Contractor-Covered Employees for Large and Small Operators for 1996**

The number of FTA-covered employees in each employee category for the large and small operators is shown in Figures 2-2 and 2-3, respectively. Almost two-thirds (64.74%) of safety-sensitive employees who worked for large operators were revenue vehicle operators, whereas over three-quarters (75.30%) of safety-sensitive employees who worked for small operators were revenue vehicle operators. In both cases, revenue vehicle operators were the largest group of safety-sensitive employees.



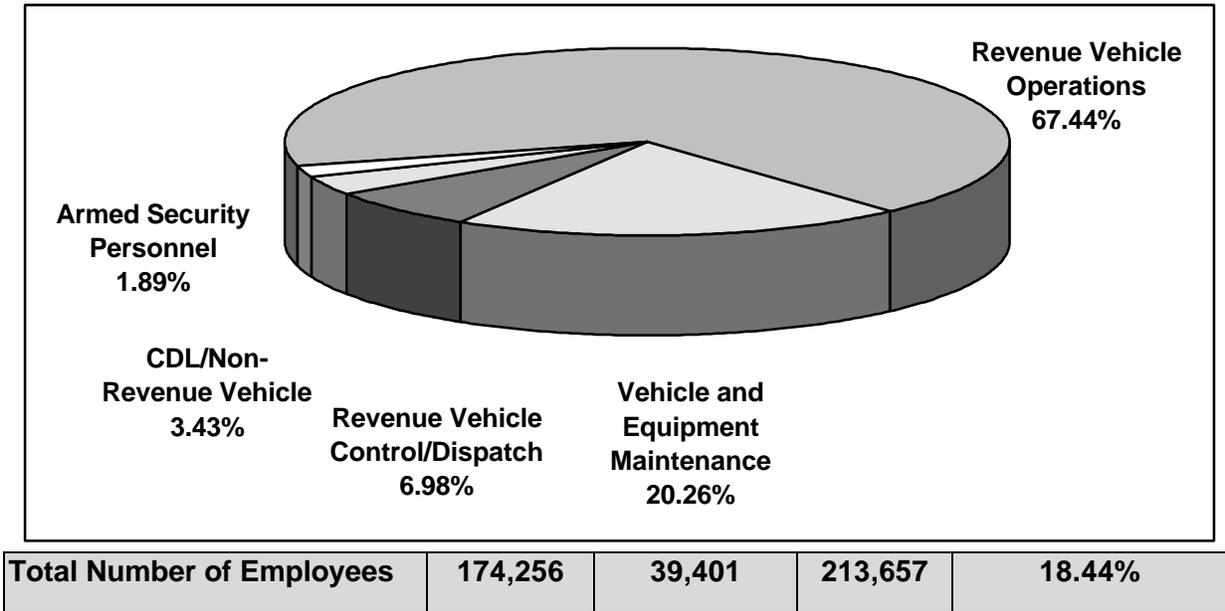
**Figure 2-2. Percent of FTA-Covered Employees in Each Employee Category for Large Operators for 1996**



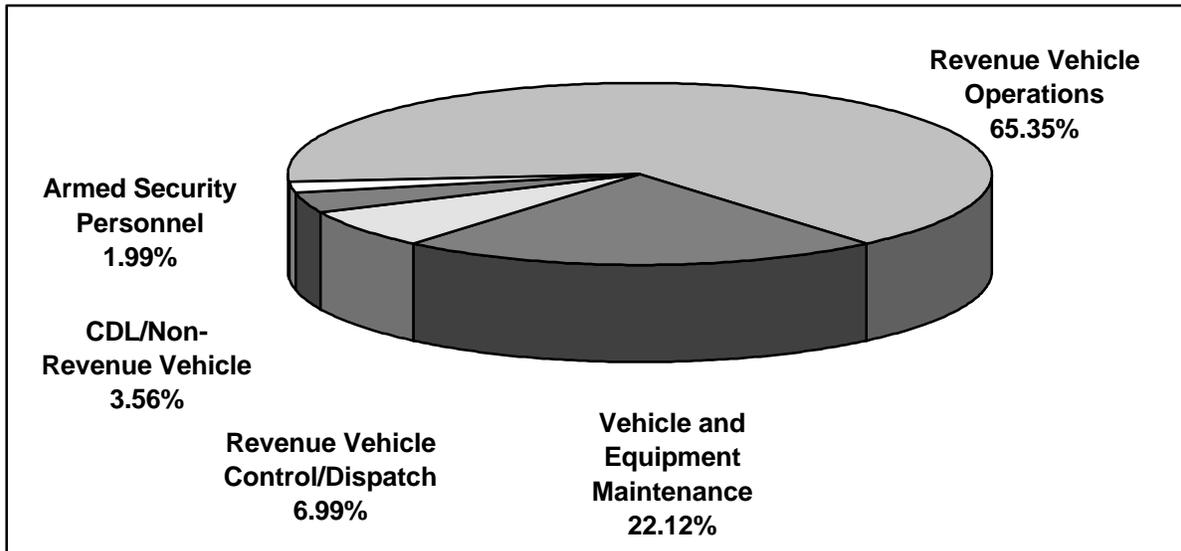
**Figure 2-3. Percent of FTA-Covered Employees in Each Employee Category for Small Operators for 1996**

Table 2-2 presents the distribution of covered employees by employee category for transit systems and contractors. The accompanying pie charts (Figures 2-4 through 2-6) illustrate these results. Contractors comprise a relatively small percentage of the total number of FTA-covered employees at 18.44 percent. On a category-specific percentage basis, contractors were used more often as revenue vehicle operators and revenue vehicle control/dispatchers (20.98% and 18.24%, respectively) and were least often used for revenue vehicle and equipment maintenance (10.93%). In Figure 2-4, the largest number of employees performing safety-sensitive functions were revenue vehicle operators (67.44%); followed by revenue vehicle and equipment maintenance (20.26%). Revenue vehicle control/dispatch, commercial driver's license/non-revenue vehicle, and armed security personnel together made up 12.30 percent of the overall reported labor force.

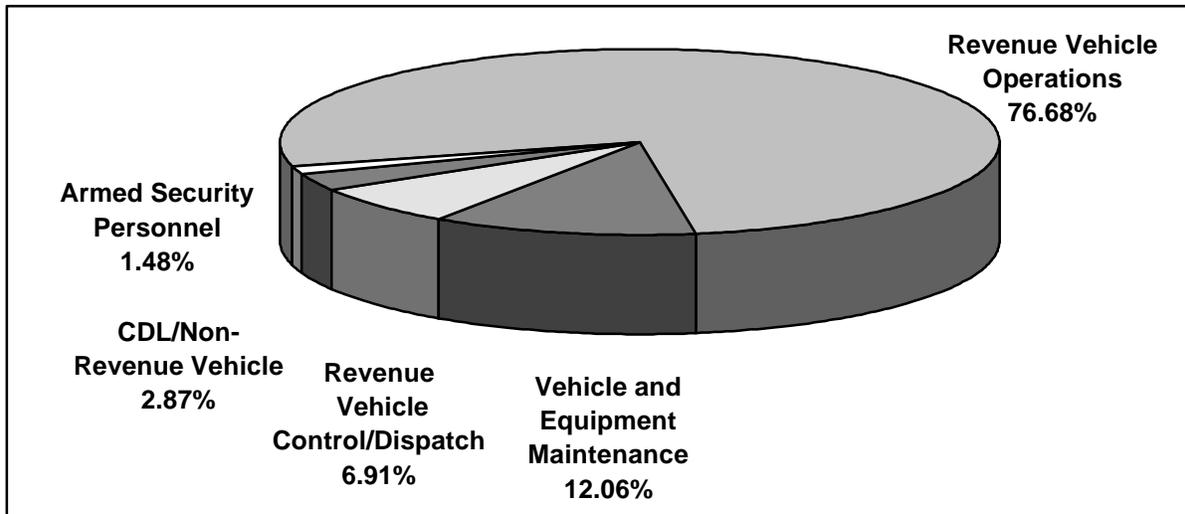
Employee Category	Number of Covered Employees			Percent of Labor Force Contracted
	Transit Systems	Contractors	Totals	
Revenue Vehicle Operation	113,873	30,240	144,113	20.98%
Revenue Vehicle and Equipment Maintenance	38,538	4,731	43,269	10.93%
Revenue Vehicle Control/Dispatch	12,178	2,716	14,894	18.24%
CDL/Non-Revenue Vehicle	6,207	1,131	7,338	15.41%
Armed Security Personnel	3,460	583	4,043	14.42%



**Figure 2-4. Percent of FTA-Covered Employees in Each Employee Category for 1996**



**Figure 2-5. Percent of FTA-Covered Employees in Each Employee Category for 1996 - Transit System Direct Employees Only**



**Figure 2-6. Percent of FTA-Covered Employees in Each Employee Category for 1996 - Contractor Employees Only**

## 2.2 U.S. Coast Guard-Covered Employees

Many USCG-covered employees performed safety-sensitive functions for transit providers who received FTA funds; therefore the FTA required the number of USCG-covered employees to be reported. Reporting of USCG-covered employees was not required on the Alcohol MIS Form.

Twenty-six employers reported employees performing safety-sensitive functions covered by the USCG. Table 2-3 identifies the number of USCG-covered employees by employee category.

Employee Category	Number of USCG Employees			Percent of Total USCG Employees	
	Transit Systems	Contractors	Totals	Transit Systems	Contractors
Revenue Vehicle Operations	1,536	27	1,563	98.27%	1.73%
Revenue Vehicle and Equipment Maintenance	98	94	192	51.04%	48.96%
Revenue Vehicle Control/Dispatch	35	4	39	89.74%	10.26%
CDL/Non-Revenue Vehicle	2	2	4	50.00%	50.00%
Armed Security Personnel	0	0	0	0.00%	0.00%
<b>Total Number of Employees</b>	<b>1,671</b>	<b>127</b>	<b>1,798</b>	<b>92.94%</b>	<b>7.06%</b>

Transit systems and their contractors employed 1,798 USCG-covered employees, which was 0.84 percent of the total reported FTA-covered employees. USCG-covered employees were involved mainly in revenue vehicle operations at a rate of 86.93 percent. There were no reported USCG-covered armed security personnel. Contractors made up a smaller overall percent of the USCG-covered employment (7.06%) compared to the total FTA-covered workforce (18.43%).<sup>1</sup>

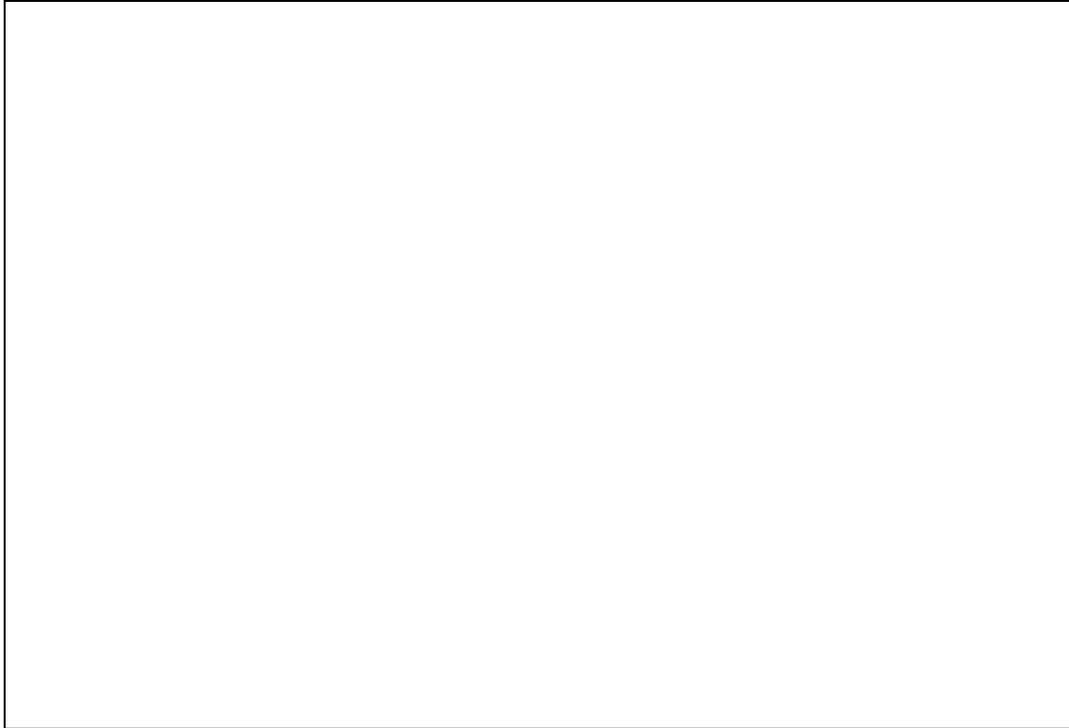
### 2.3 Random Testing Percent Requirements

One of the most important aspects of the FTA's drug and alcohol testing program is the requirement that each employer conduct the required level of random testing. For 1996, the number of random drug tests conducted was required to equal at least 50 percent of the total number of safety-sensitive employees. The number of random alcohol tests conducted was required to be at least 25 percent of the total number of safety-sensitive employees.

A slightly higher percentage of transit systems met the required drug testing level than did contractors (50.57% to 45.88%, respectively). A higher percentage of large operators (57.22%) met the drug testing requirements than small operators (46.48%). Alcohol testing compliance for both the large and small operators (55.79% and 47.29%, respectively) was slightly higher than drug testing compliance. This information is presented in Table 2-4 and further illustrated in Figures 2-7 and 2-8.

	Drug Testing				Alcohol Testing			
	Transit Systems	Contractors	Large Operators	Small Operators	Transit Systems	Contractors	Large Operators	Small Operators
<b>Met Requirement</b>	50.57%	45.88%	57.22%	46.48%	49.30%	49.58%	55.79%	47.29%
<b>Did Not Meet Requirement</b>	49.43%	54.12%	42.78%	53.52%	50.70%	50.42%	44.21%	52.71%

<sup>1</sup> Because the drug testing results for USCG-covered employees were co-mingled with the results for FTA-covered employees, a separate presentation of the drug testing results for USCG-covered employees was not possible.



**Figure 2-7. Percent of Employees Administered Random Drug Tests by Employers in 1996**



**Figure 2-8. Percent of Employees Administered Random Alcohol Tests by Employers in 1996**

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\*Employers are ranked according to the percents of respective employees tested. The rankings have been normalized by dividing each rank order position by the total number of employers.

In Figures 2-7 and 2-8, the portion of the line above the horizontal testing requirement line shows the percentage of employers that were in compliance, while the portion of the line below the testing requirement line refers to the percentage of employers that were not in compliance. Please note that some employers reporting below the required level of testing may be members of a consortium. If the consortium tests at the required level it does not necessarily test the employees from each member of its consortium at the required level.

## 2.4 FTA-Required Training

Based on the information reported, 65,372 FTA-covered employees (30.60% of the total number of employers reporting) received at least 60 minutes of training on the consequences, manifestations, and behavioral cues of illegal drug use during 1996. In addition, 9,784 supervisory personnel received 60 minutes of training on the specific contemporaneous physical, behavioral, and performance indicators of probable drug use, and 11,326 supervisory personnel received similar training for alcohol during 1996.

## 2.5 Federal Funds

Transit systems are required to report the types of FTA funds they received. Specifically, transit systems are required to identify the particular sections of the Federal Transit Act under which they received Federal funds (i.e., Sections 5307, 5309, 5310<sup>2</sup>, and 5311). Many of the 1,580 transit systems received funding under multiple sections, as shown in Table 2-5. Section 5307 refers to block grants for capital projects and to finance 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, the introduction of new technologies, the enhancement of urban economic development or the incorporation of private investment, and mass transportation projects to meet the needs of the elderly and individuals with disabilities. Section 5310 refers to grants and loans for special needs of the elderly and individuals with disabilities. Section 5311 refers to financial assistance for non-urbanized areas.

	<b>Section 5307</b>	<b>Section 5309</b>	<b>Section 5310</b>	<b>Section 5311</b>
<b>Number of Transit Systems</b>	370	508	311	1,095
<b>Percent of Transit Systems</b>	23.42%	32.15%	19.68%	69.30%

<sup>2</sup> Recipients of Section 5310 funds are not required to comply with the FTA drug and alcohol rules, unless they provide contract services to recipients of Section 5307, 5309, and 5311 funds. In those instances, they must report as contractors.

### 3. DRUG TEST RESULTS

This section provides background information and a summary of the 1996 drug testing results. For drug testing a urine specimen is collected for analysis. The prohibited drugs for which each urine specimen must be tested are marijuana, cocaine, phencyclidine (PCP), opiates, and amphetamines.

#### 3.1 Introduction

A total of 184,666 samples were collected for all types of drug testing in 1996. The tests used to collect these samples are as follows: pre-employment, random, post-accident, reasonable suspicion, return-to-duty, and follow-up. The results of the random drug testing provide an indication of the overall level of industry-wide drug use among covered transit system and contractor employees.

As shown in Table 3-1, in 1996 a total of 108,347 specimens were collected under random drug testing during the year. Overall, 1.50 percent of those specimens tested positive for one or more of the five prohibited drugs. Among transit systems 1.42 percent of all random specimens tested positive, and among contractors 1.84 percent tested positive.

<b>Employer</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>
<b>Transit Systems</b>	88,114	1,247	1.42%
<b>Contractors</b>	20,233	373	1.84%
<b>Totals</b>	<b>108,347</b>	<b>1,620</b>	<b>1.50%</b>

Among large operators 1.48 percent of all random specimens tested positive, and among small operators 1.55 percent tested positive, as seen in Table 3-2. The FTA drug rule provides that if the results from industry-wide drug testing are less than 1.00 percent for 2 consecutive years, then the FTA may lower the required random drug testing rate from the current 50 percent requirement to 25 percent. However, in 1995 and 1996, the industry-wide random positive testing rate exceeded 1.00 percent.

<b>Operator Size</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>
<b>Large</b>	81,981	1,211	1.48%
<b>Small</b>	26,366	409	1.55%
<b>Totals</b>	<b>108,347</b>	<b>1,620</b>	<b>1.50%</b>

### **3.2 Results of Drug Tests Presented by Test Types**

Six types of drug testing information were required of transit systems and their contractors: pre-employment, random, post-accident, reasonable suspicion, return-to-duty, and follow-up. Table 3-3 presents drug test results by test type for transit systems, contractors, and their combined totals. It shows the number of specimens collected, the number of positive results, and the percent of positive results. The totals indicate that the positive drug test results show some variation when viewed by test types. Over all employment categories, 6.84 percent of the reasonable suspicion tests were positive. Return-to-duty tests were 3.56 percent positive. Pre-employment, post-accident, and follow-up tests were between 2.00 and 3.00 percent positive. Exactly 1.50 percent of the random tests conducted were positive.

The positive results were higher for contractors than for transit systems for pre-employment, random, post-accident, reasonable suspicion, and follow-up tests. The positive results were higher for transit systems than for contractors only in the return-to-duty category. It should be noted that in four of the six test types, CDL/non-revenue employees had the highest percent of overall positive results.

<b>Table 3-3. Drug Test Results by Test Type and Employee Category for 1996</b>									
	<b>Transit Systems</b>			<b>Contractors</b>			<b>Totals</b>		
<b>Test Type</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>
<b>TOTALS BY TEST TYPE, ALL EMPLOYEE CATEGORIES</b>									
<b>Pre-employment</b>	26,471	619	2.34%	22,921	773	3.37%	49,392	1,392	2.82%
<b>Random</b>	88,114	1,247	1.42%	20,233	373	1.84%	108,347	1,620	1.50%
<b>Post-Accident</b>	9,661	179	1.85%	2,593	77	2.97%	12,254	256	2.09%
<b>Reasonable Suspicion</b>	981	50	5.10%	189	30	15.87%	1,170	80	6.84%
<b>Return-to-Duty</b>	1,897	70	3.69%	268	7	2.61%	2,165	77	3.56%
<b>Follow-Up</b>	10,748	241	2.24%	590	25	4.24%	11,338	266	2.35%
<b>TOTALS</b>	<b>137,872</b>	<b>2,406</b>	<b>1.75%</b>	<b>46,794</b>	<b>1,285</b>	<b>2.75%</b>	<b>184,666</b>	<b>3,691</b>	<b>2.00%</b>
	<b>Transit Systems</b>			<b>Contractors</b>			<b>Totals</b>		
<b>Employee Category</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>
<b>PRE-EMPLOYMENT</b>									
<b>Revenue Vehicle Operation</b>	20,922	491	2.35%	19,934	679	3.41%	40,856	1,170	2.86%
<b>Revenue Veh. and Equip. Maint.</b>	2,991	72	2.41%	1,377	52	3.78%	4,368	124	2.84%
<b>Revenue Veh. Control/Disp.</b>	934	10	1.07%	642	21	3.27%	1,576	31	1.97%
<b>CDL/Non-Revenue Vehicle</b>	1,196	44	3.68%	577	15	2.60%	1,773	59	3.33%
<b>Armed Security Personnel</b>	428	2	0.47%	391	6	1.53%	819	8	0.98%
<b>RANDOM</b>									
<b>Revenue Vehicle Operation</b>	57,762	814	1.41%	16,078	308	1.92%	73,840	1,122	1.52%
<b>Revenue Veh. and Equip. Maint.</b>	19,688	316	1.61%	2,096	40	1.91%	21,784	356	1.63%
<b>Revenue Veh. Control/Disp.</b>	5,930	46	0.78%	1,193	18	1.51%	7,123	64	0.90%
<b>CDL/Non-Revenue Vehicle</b>	3,296	64	1.94%	558	4	0.72%	3,854	68	1.76%
<b>Armed Security Personnel</b>	1,438	7	0.49%	308	3	0.97%	1,746	10	0.57%

<b>Table 3-3. Drug Test Results by Test Type and Employee Category for 1996 (continued)</b>									
	<b>Transit Systems</b>			<b>Contractors</b>			<b>Totals</b>		
<b>Test Type</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>
<b>POST-ACCIDENT</b>									
Revenue Vehicle Operation	8,474	156	1.84%	2,495	75	3.01%	10,969	231	2.11%
Revenue Veh. and Equip. Maint.	667	11	1.65%	61	1	1.64%	728	12	1.65%
Revenue Veh. Control/Disp.	169	5	2.96%	11	0	0.00%	180	5	2.78%
CDL/Non-Revenue Vehicle	267	6	2.25%	24	1	4.17%	291	7	2.41%
Armed Security Personnel	84	1	1.19%	2	0	0.00%	86	1	1.16%
<b>REASONABLE SUSPICION</b>									
Revenue Vehicle Operation	804	35	4.35%	172	22	12.79%	976	57	5.84%
Revenue Veh. and Equip. Maint.	102	8	7.84%	7	5	71.43%	109	13	11.93%
Revenue Veh. Control/Disp.	43	2	4.65%	6	3	50.00%	49	5	10.20%
CDL/Non-Revenue Vehicle	28	5	17.86%	3	0	0.00%	31	5	16.13%
Armed Security Personnel	4	0	0.00%	1	0	0.00%	5	0	0.00%
<b>RETURN-TO-DUTY</b>									
Revenue Vehicle Operation	1,296	53	4.09%	215	4	1.86%	1,511	57	3.77%
Revenue Veh. and Equip. Maint.	413	13	3.15%	38	3	7.89%	451	16	3.55%
Revenue Veh. Control/Disp.	51	2	3.92%	10	0	0.00%	61	2	3.28%
CDL/Non-Revenue Vehicle	104	2	1.92%	3	0	0.00%	107	2	1.87%
Armed Security Personnel	33	0	0.00%	2	0	0.00%	35	0	0.00%
<b>FOLLOW-UP</b>									
Revenue Vehicle Operation	6,713	139	2.07%	503	16	3.18%	7,216	155	2.15%
Revenue Veh. and Equip. Maint.	3,053	68	2.23%	59	7	11.86%	3,112	75	2.41%
Revenue Veh. Control/Disp.	308	3	0.97%	23	2	8.70%	331	5	1.51%
CDL/Non-Revenue Vehicle	632	30	4.75%	5	0	0.00%	637	30	4.71%
Armed Security Personnel	42	1	2.38%	0	0	0.00%	42	1	2.38%

### **3.2.1 Pre-Employment Drug Test Results**

Pre-employment drug test results produced an overall positive result of 2.82 percent. Transit systems had 2.34 percent positive, while contractors had 3.37 percent positive.

For pre-employment testing, CDL/non-revenue vehicle personnel had the highest overall positive result, at 3.33 percent. For transit systems, this employee category was also the highest at 3.68 percent. For contractors, revenue vehicle and equipment maintenance workers had the highest positive result at 3.78 percent. For both transit systems and contractors, armed security personnel had the lowest positive rate, with 0.47 percent and 1.53 percent, respectively.

### **3.2.2 Random Drug Test Results**

Random testing was the most frequently conducted test industry-wide (58.67% of all tests). Random testing also was the most frequently conducted test type by transit systems (63.91%). However, random testing was not the most frequently conducted test type by contractors (43.24%). Contractors conducted more pre-employment tests than any other test type (48.98%).

Random testing accounted for the lowest percent of positive results compared to the other testing categories, resulting in a positive result of 1.50 percent industry-wide. This positive rate was consistent for both transit systems (1.42%) and contractors (1.84%). Within the random testing category, only revenue vehicle control and dispatch employees and armed security personnel had overall positive rates under 1.00 percent.

### **3.2.3 Post-Accident Drug Test Results**

Post-accident testing was 1.85 percent positive for transit systems and 2.97 percent positive for contractors. For contractors, there were no positive tests for armed security personnel or revenue vehicle control/dispatch for this test type. The contractor employee category reporting the highest positive result was CDL/non-revenue vehicle personnel, with 4.17 percent. For transit systems, the revenue vehicle control and dispatch employee category ranked highest at 2.96 percent positive.

### **3.2.4 Reasonable Suspicion Drug Test Results**

Reasonable suspicion testing produced the highest percent of positive results for transit systems, contractors, and industry-wide (5.10%, 15.87%, and 6.84% respectively). However, while this testing type accounted for the highest percent of positive results, it was the least often conducted test. Overall, it accounted for 1,170 tests or 0.63 percent of all drug tests administered.

Within the reasonable suspicion category, CDL/non-revenue vehicle personnel tested positive most frequently with a rate of 16.13 percent. Revenue vehicle and equipment maintenance employees had the next highest rate within this test type at 11.93 percent. Among contractors, positive results were found more often for tests of revenue vehicle and equipment maintenance, revenue vehicle control/dispatch, and revenue vehicle operator employee categories than for transit system employees in the same categories (71.43% vs. 7.84%; 50.00% vs. 4.65%; and

12.79% vs. 4.35%). Among transit system employees, positive results were found more often for tests of the CDL/non-revenue vehicle operator employee category than for contractors in the same employee category (17.86% vs. 0.00% [0 of 3 tests]).

### **3.2.5 Return-to-Duty Drug Test Results**

Overall, 3.56 percent of the specimens tested in the return-to-duty category were positive. Transit systems reported positive test results of 3.69 percent. Contractors indicated positive test results at 2.61 percent.

Overall, the revenue vehicle operation employee category had the highest percent of positive results within this test type at 3.77 percent. Revenue vehicle and equipment maintenance employees ranked second with 3.55 percent. No positive results were found for the 35 tests conducted for armed security personnel (33 tests given for transit systems and 2 tests given for contractors).

### **3.2.6 Follow-Up Drug Test Results**

Overall results for follow-up testing were 2.35 percent positive for follow-up drug testing. Transit systems reported results at 2.24 percent positive. Contractors reported a higher positive result of 4.24 percent. The majority of tests in this category were conducted by transit systems (10,748, or 94.80%).

Overall within this test type, the CDL/non-revenue vehicle employee category accounted for the highest percent of positive results at 4.71 percent, and the revenue vehicle and equipment maintenance category ranked second with 2.41 percent positive test results.

## **3.3 Results of Drug Tests Presented by Employee Category**

This section presents drug test results by employee category for transit systems and contractors and their combined totals. Table 3-4 identifies the number of specimens collected, the number of positive results, and the percent of positive results.

Approximately three-fourths (73.30%) of the specimens were collected from revenue vehicle operators, approximately one-fifth (16.54%) from revenue vehicle and equipment maintenance employees, and the remainder (10.15%) from employees in the other three categories: revenue vehicle control/dispatch, CDL/non-revenue vehicle, and armed security personnel.

The random testing data show some variation when viewed by employee category. Industry-wide, none of the employment categories had positive test results above 2.00 percent. The category with the highest positive results was CDL/non-revenue vehicle personnel with 1.76 percent. The category with the lowest positive results was armed security personnel with 0.57 percent. In four of the five employee categories, reasonable suspicion tests had the highest percent of positive results. In four of the five employee categories, random tests had the lowest percent of positive results. The exception to this trend was in the armed security personnel

category, where follow-up tests had the highest percent of positive results. Reasonable suspicion and return-to-duty test types each had zero positive results.

**Table 3-4. Drug Test Results by Employee Category and Test Type for 1996**

Test Type	Transit Systems			Contractors			Totals		
	Number of Specimens Collected	Number of Positive Results	Percent Positive	Number of Specimens Collected	Number of Positive Results	Percent Positive	Number of Specimens Collected	Number of Positive Results	Percent Positive
<b>TOTALS BY EMPLOYEE CATEGORY, ALL TEST TYPES</b>									
Revenue Vehicle Operation	95,971	1,688	1.76%	39,397	1,104	2.80%	135,368	2,792	2.06%
Revenue Veh. and Equip. Maint.	26,914	488	1.81%	3,638	108	2.97%	30,552	596	1.95%
Revenue Veh. Control/Disp.	7,435	68	0.91%	1,885	44	2.33%	9,320	112	1.20%
CDL/Non-Revenue Vehicle	5,523	151	2.73%	1,170	20	1.71%	6,693	171	2.55%
Armed Security Personnel	2,029	11	0.54%	704	9	1.28%	2,733	20	0.73%
<b>TOTALS</b>	<b>137,872</b>	<b>2,406</b>	<b>1.75%</b>	<b>46,794</b>	<b>1,285</b>	<b>2.75%</b>	<b>184,666</b>	<b>3,691</b>	<b>2.00%</b>
	Transit Systems			Contractors			Totals		
	Number of Specimens Collected	Number of Positive Results	Percent Positive	Number of Specimens Collected	Number of Positive Results	Percent Positive	Number of Specimens Collected	Number of Positive Results	Percent Positive
<b>REVENUE VEHICLE OPERATOR</b>									
Pre-employment	20,922	491	2.35%	19,934	679	3.41%	40,856	1,170	2.86%
Random	57,762	814	1.41%	16,078	308	1.92%	73,840	1,122	1.52%
Post-Accident	8,474	156	1.84%	2,495	75	3.01%	10,969	231	2.11%
Reasonable Suspicion	804	35	4.35%	172	22	12.79%	976	57	5.84%
Return-to-Duty	1,296	53	4.09%	215	4	1.86%	1,511	57	3.77%
Follow-Up	6,713	139	2.07%	503	16	3.18%	7,216	155	2.15%
<b>REVENUE VEHICLE AND EQUIPMENT MAINTENANCE</b>									
Pre-employment	2,991	72	2.41%	1,377	52	3.78%	4,368	124	2.84%
Random	19,688	316	1.61%	2,096	40	1.91%	21,784	356	1.63%
Post-Accident	667	11	1.65%	61	1	1.64%	728	12	1.65%
Reasonable Suspicion	102	8	7.84%	7	5	71.43%	109	13	11.93%
Return-to-Duty	413	13	3.15%	38	3	7.89%	451	16	3.55%
Follow-Up	3,053	68	2.23%	59	7	11.86%	3,112	75	2.41%

<b>Table 3-4. Drug Test Results by Employee Category and Test Type for 1996 (continued)</b>									
	<b>Transit Systems</b>			<b>Contractors</b>			<b>Totals</b>		
<b>Test Type</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>	<b>Number of Specimens Collected</b>	<b>Number of Positive Results</b>	<b>Percent Positive</b>
<b>REVENUE VEHICLE CONTROL AND DISPATCH</b>									
Pre-employment	934	10	1.07%	642	21	3.27%	1,576	31	1.97%
Random	5,930	46	0.78%	1,193	18	1.51%	7,123	64	0.90%
Post-Accident	169	5	2.96%	11	0	0.00%	180	5	2.78%
Reasonable Suspicion	43	2	4.65%	6	3	50.00%	49	5	10.20%
Return-to-Duty	51	2	3.92%	10	0	0.00%	61	2	3.28%
Follow-Up	308	3	0.97%	23	2	8.70%	331	5	1.51%
<b>CDL/NON-REVENUE VEHICLE</b>									
Pre-employment	1,196	44	3.68%	577	15	2.60%	1,773	59	3.33%
Random	3,296	64	1.94%	558	4	0.72%	3,854	68	1.76%
Post-Accident	267	6	2.25%	24	1	4.17%	291	7	2.41%
Reasonable Suspicion	28	5	17.86%	3	0	0.00%	31	5	16.13%
Return-to-Duty	104	2	1.92%	3	0	0.00%	107	2	1.87%
Follow-Up	632	30	4.75%	5	0	0.00%	637	30	4.71%
<b>ARMED SECURITY PERSONNEL</b>									
Pre-employment	428	2	0.47%	391	6	1.53%	819	8	0.98%
Random	1,438	7	0.49%	308	3	0.97%	1,746	10	0.57%
Post-Accident	84	1	1.19%	2	0	0.00%	86	1	1.16%
Reasonable Suspicion	4	0	0.00%	1	0	0.00%	5	0	0.00%
Return-to-Duty	33	0	0.00%	2	0	0.00%	35	0	0.00%
Follow-Up	42	1	2.38%	0	0	0.00%	42	1	2.38%

### **3.3.1 Drug Test Results for Revenue Vehicle Operation Category**

Industry-wide, the most frequently tested employees were revenue vehicle operators (135,368 of 184,666 tests or 73.30% of all tests). In this employee category, contractors were tested at a lower rate than transit system employees (29.10% of all tests and 70.90% of all tests, respectively).

Random testing for this employee category resulted in 1.52 percent of the specimens testing positive overall. Transit systems recorded a positive rate of 1.41 percent, while contractors were slightly higher at 1.92 percent. In contrast to random testing, reasonable suspicion testing resulted in 5.84 percent of the tests being positive in this employee category. Positive result rates for reasonable suspicion testing were also higher than for random testing for both the transit systems and contractors (4.35% and 12.79%, respectively). For contractors, the reasonable suspicion positive rate (for this employee category) was more than six times greater than the random positive rate (12.79% vs. 1.92%).

### **3.3.2 Drug Test Results for Revenue Vehicle and Equipment Maintenance Category**

Random drug testing of the revenue vehicle and equipment maintenance category produced an overall positive rate of 1.63 percent. Transit system employees in this category had a random positive test rate of 1.61 percent; the positive test rate for contractors was slightly higher at 1.91 percent. Within this employee category, reasonable suspicion testing accounted for the highest percent of positive specimens for transit systems with 7.84 percent positive and for contractors with 71.43 percent positive (5 out of 7 tests administered). For transit systems, the lowest percent of positives within this employee category was for random tests (1.61%). For contractors, the lowest percent of positives within this employee category was for post-accident tests (1.64 %). Pre-employment, follow-up, and return-to-duty test results in this employee category also had a higher percent of positives than did random testing for both contractors and transit systems.

### **3.3.3 Drug Test Results for Revenue Vehicle Control/Dispatch Category**

Random testing in this employee category resulted in 0.90 percent of the specimens testing positive. Transit systems reported 0.78 percent positive, and contractors reported 1.51 percent positive.

Within this employee category, reasonable suspicion tests had the highest percent of positive results overall (10.20%). For contractors, the positive rate for reasonable suspicion tests was 50.00 percent (3 of 6 tests administered). Transit systems reported 4.65 percent positive for reasonable suspicion testing. There were no positive test results for post-accident and return-to-duty tests for contractors. For transit systems, the positive test result rates for post-accident and return-to-duty tests for this employee category were 2.96 percent and 3.92 percent, respectively. Follow-up tests for contractor employees in this category had a positive rate of 8.70 percent, whereas transit system employees had a positive rate of 0.97 percent.

### **3.3.4 Drug Test Results for CDL/Non-Revenue Vehicle Category**

Overall random testing of this employee category resulted in 1.76 percent of the specimens testing positive. Results for transit systems were similar (1.94%) but were lower for contractors (0.72%).

Other testing within this employee category revealed that reasonable suspicion had the highest percent of positive test results (16.13% overall). This was true for transit systems, with a 17.86 percent positive rate. For contractors, however, the positive rate was zero (three tests with zero positive results). In addition, contractors reported no positive results for return-to-duty testing and for follow-up testing within this employee category, while transit systems reported 1.92 percent and 4.75 percent positive, respectively.

### **3.3.5 Drug Test Results for Armed Security Personnel Category**

Overall positive random test results for armed security personnel were reported at 0.57 percent (armed security personnel had the lowest overall random test percent compared to the other employee categories). Of the 20 total positive results for this employee category, 10 occurred in random testing. In addition, no positive results were reported by contractors or transit systems for reasonable suspicion or return-to-duty tests for armed security personnel.

## **3.4 Distribution of Positive Drug Test Results**

This section presents the distribution of positive drug test results for employees who tested positive for one or more of the five prohibited drugs. To be recorded as a positive result, an employee may, for example, have tested positive for a specific drug or a combination of drugs (e.g., marijuana and cocaine, cocaine and PCP).

### **3.4.1 Distribution of Positive Drug Test Results for One or More Drugs**

As presented in Table 3-5, of the 184,666 specimens collected for drug testing overall test types, 74.66 percent (137,872) were collected by transit systems, and 25.34 percent (46,794) were collected by contractors. Of the 184,666 total specimens collected, 3,691 tested positive for one or more drugs (1.99%). Transit systems reported 2,406 total positive results, and contractors reported 1,285. Contractors performed only 25.34 percent of the testing, but reported 34.81 percent of the total positive test results.

	Transit Systems		Contractors		Totals
	Number	Percent of Total	Number	Percent of Total	Number
<b>Number of Specimens Collected</b>	137,872	74.66%	46,794	25.34%	184,666
<b>Number of Positive Specimens</b>	2,406	65.19%	1,285	34.81%	3,691

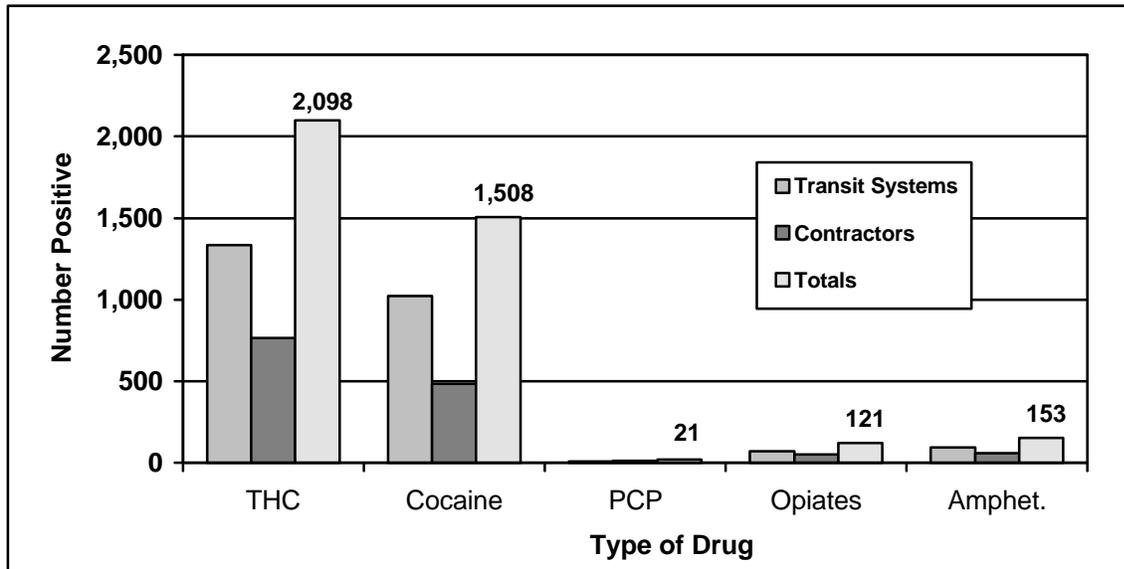
### **3.4.2 Distribution of Positive Drug Test Results by Type of Drug**

Of the five prohibited drugs, marijuana (THC) was detected most frequently (2,098 of specimens or 53.78%), followed by cocaine (1,508 or 38.66%), as indicated in Table 3-6. The occurrence of PCP was less than 0.55 percent of all positive specimens. It should be noted that the total number of specimens containing each type of drug is higher than the total number of positive specimens referenced elsewhere in this report. This discrepancy is due to the reporting requirement for specimens containing multiple drugs in a single sample. For instance, one positive sample may have contained two or more drugs.

	Transit Systems		Contractors		Totals	
	Number Positive	Percent of Total	Number Positive	Percent of Total	Number Positive	Percent of Total
<b>Marijuana</b>	1,333	52.73%	765	55.72%	2,098	53.78%
<b>Cocaine</b>	1,022	40.43%	486	35.40%	1,508	38.66%
<b>PCP</b>	10	0.40%	11	0.80%	21	0.54%
<b>Opiates</b>	70	2.77%	51	3.71%	121	3.10%
<b>Amphetamines</b>	93	3.68%	60	4.37%	153	3.92%

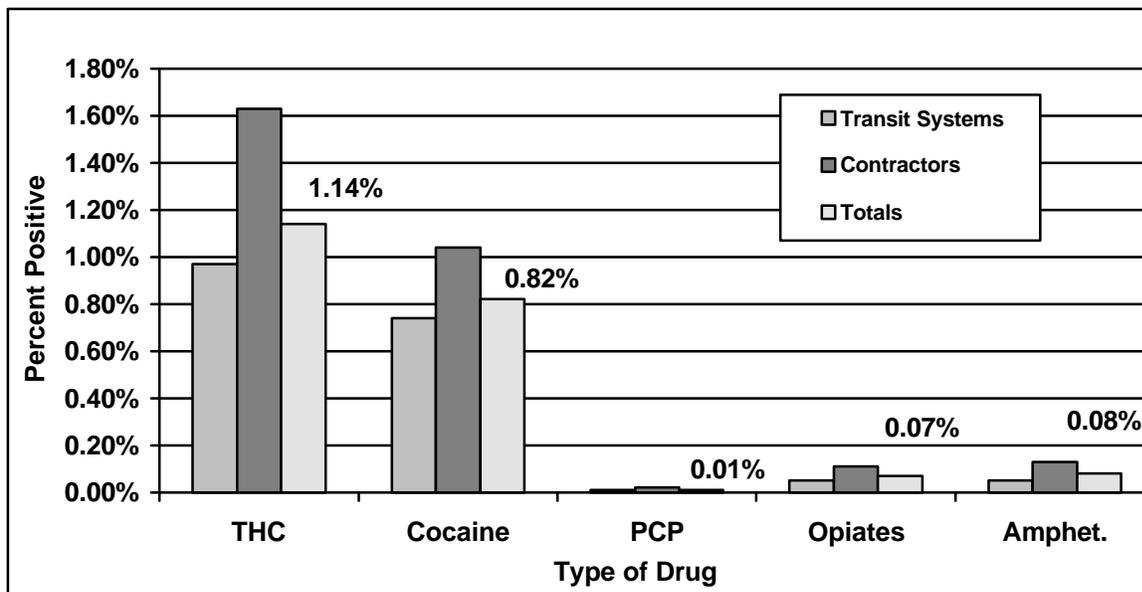
As presented in Table 3-6, the overall number of positive test results for marijuana was 2,098: 1,333 for transit systems and 765 for contractors. For cocaine, the overall number of positive test results was 1,508: 1,022 for transit systems and 486 for contractors. The number of positive test results for amphetamines was 93 for transit systems and 60 for contractors, respectively. For transit systems, the number of positive test results for opiates was 70. For contractors, it was 51. There were very few positive test results for PCP (a total of 21): 10 positive for transit systems and 11 positive for contractors. Figure 3-1 shows the number of positive specimens by drug type for contractors and transit systems. The figures in the columns should not be totaled because this will result in double counting those employees who tested positive for more than one drug at the same time. For example, if an employee tested positive for both marijuana and cocaine it would have been recorded as one positive result. However, if the numbers from Figure 3-1 are added

together then this one positive result will be counted both as one positive marijuana test and one positive cocaine test.



**Figure 3-1. Number of Positive Specimens by Type of Drug for 1996**

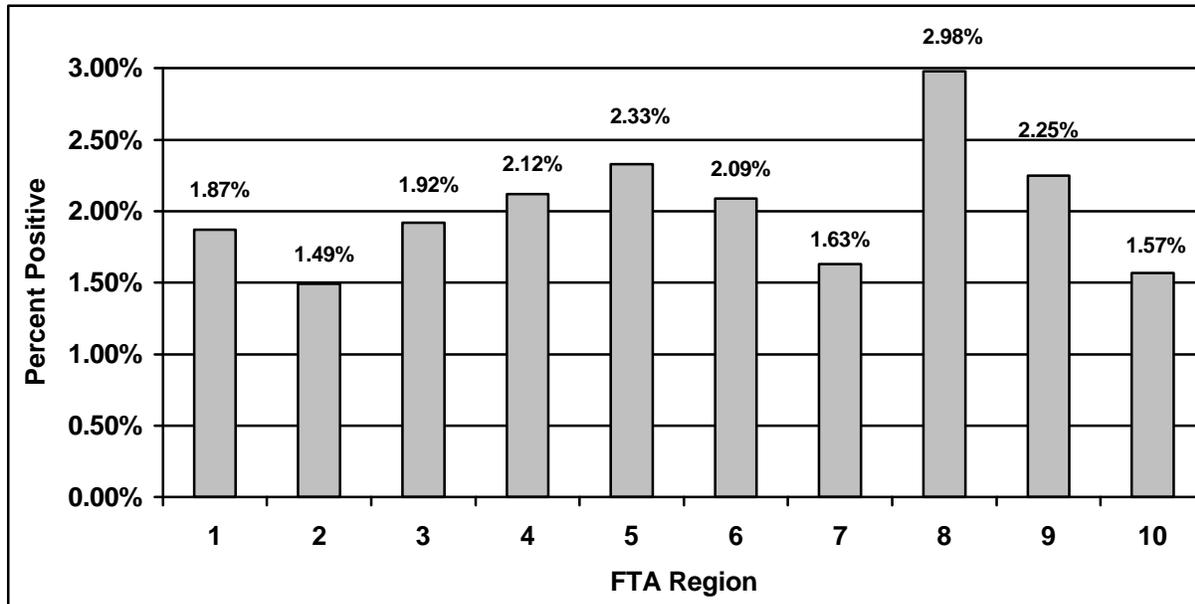
Overall, 1.14 percent of all 184,666 specimens collected tested positive for marijuana; 0.97 percent for transit systems, and 1.63 percent for contractors, as presented in Figure 3-2. For cocaine, the overall positive rate was 0.82 percent. For transit systems, the rate was 0.74 percent; it was 1.04 percent for contractors. For contractors, the percent positive for opiates and amphetamines was 0.11 percent and 0.13 percent, respectively. For transit systems, the percent positive for each of those drugs was 0.05 percent.



**Figure 3-2. Percent of Positive Specimens by Type of Drug for 1996**

### 3.5 Drug Test Results by FTA Region

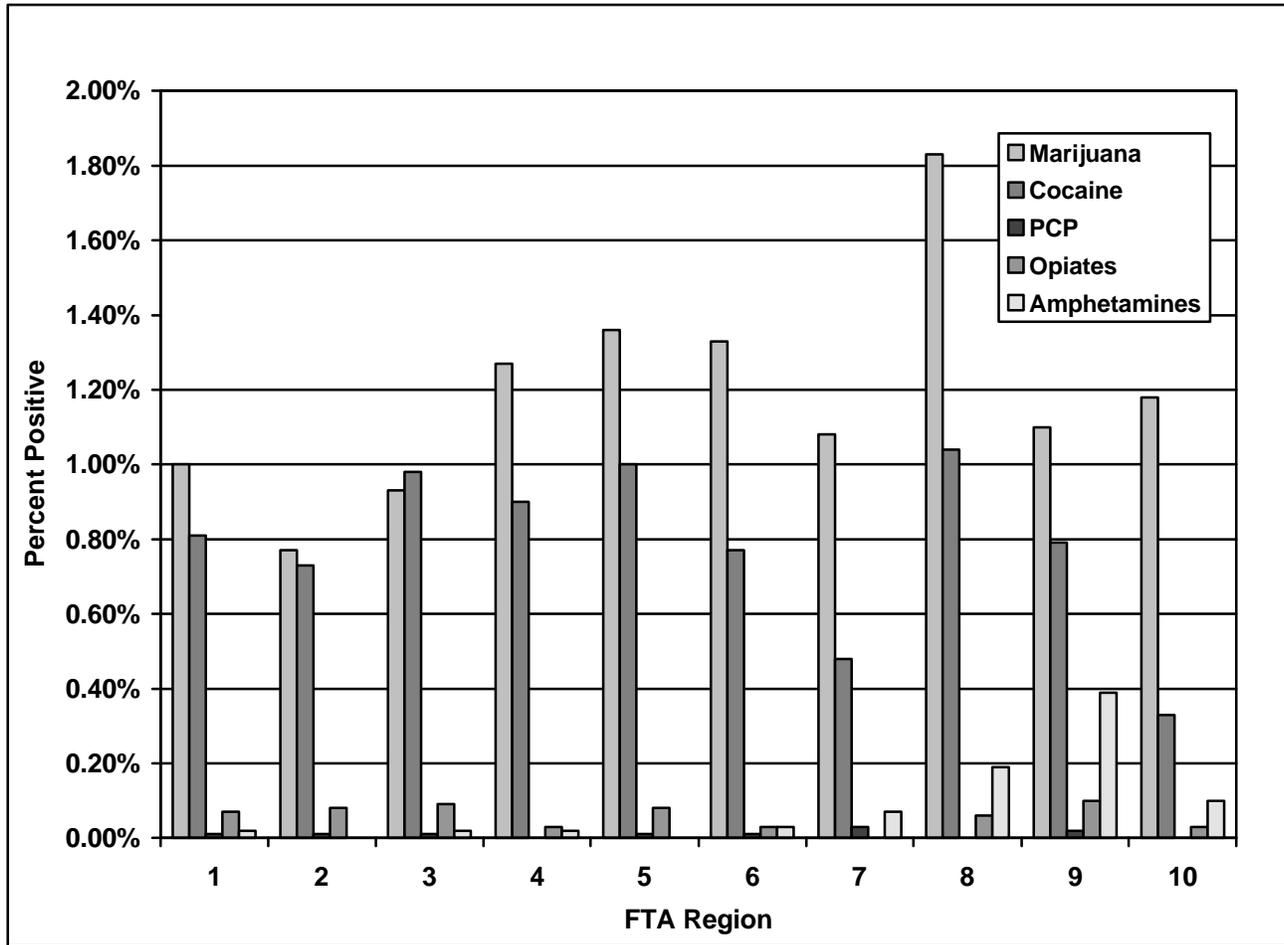
This section reports drug test results by FTA region. As seen in Figure 3-3, of the 10 FTA Regions, Regions 8 and 5 had the highest percent of specimens positive for one or more drugs with 2.98 and 2.33 percent, respectively. Region 9 was third, with 2.25 percent positive. Regions 4 and 6 (2.12% and 2.09%, respectively) were also above the overall percent positive of 2.00 percent. The overall percent positive includes results for all test types. The remaining regions were all below the overall positive percent mark.



**Figure 3-3. Percent of Positive Overall Drug Specimens by FTA Region for 1996**

Figure 3-4 presents the regional distribution of positive drug test results. Marijuana had the highest percent of positive results in 9 out of the 10 regions. In Region 3, the rate of cocaine positives was slightly higher than the rate of marijuana positives (0.98% and 0.93%, respectively).

Region 8 had the highest percent of positive marijuana specimens with 1.83 percent. Regions 5 and 6 were second and third (1.36% and 1.33%, respectively). Region 2 had the lowest percent of specimens positive for marijuana with 0.77 percent. For cocaine, Region 8 had the highest percent of positive specimens with 1.04 percent. All of the remaining Regions had rates of less than or equal to 1.00 percent positive for cocaine, ranging from 0.33 percent (Region 10) to 1.00 percent (Region 5). Across all of the FTA Regions, the percent positive for PCP was at or below 0.03 percent. Likewise, the results for opiate testing did not exceed 0.10 percent. For amphetamines, 8 of the 10 FTA Regions had positive result rates of less than or equal to 0.10 percent. Then notable exceptions to this trend were Regions 8 and 9, which reported positive result rates of 0.19 percent and 0.39 percent, respectively.



**Figure 3-4. Percent of Specimens Testing Positive for Each of the Drug Types by FTA Region for 1996**

### 3.6 Drug Test Refusals

When directed to provide specimens for drug testing, some employees refused to be tested. In 1996, there were 110 reported cases of a covered employee refusing a random drug test and 48 cases of a covered employee refusing a non-random drug test. This is a total of 158 refusals. These refusals reflect 0.09 percent of the total number of drug tests attempted.

### 3.7 Return-to-Duty Positive Rate

The number of employees who returned to duty after a positive drug test or who refused a drug test was 77. Because the consequences for refusing a drug test and for testing positive are the same, the MIS form used to collect information from employers combine the figures in these two areas.

### 3.8 Pre-Employment Drug Test Results

There were 1,392 positive specimens among the 49,392 pre-employment drug tests administered in 1996. The number of persons denied a safety-sensitive position as a result of a positive test was 1,283, which is 2.60 percent of the total number of pre-employment drug tests and 92.17 percent of the prospective employees who tested positive in the pre-employment drug tests.

### 3.9 Post-Accident Drug Test Results

The reported number of accidents that resulted in a positive post-accident drug test was 239. Of these reported accidents, 166 were reported by transit systems and 73 were reported by contractors. The positive post-accident drug test result rate was 2.97 percent for contractors and 1.85 percent for transit systems. As a result of these accidents, there was one fatality.

### 3.10 Comparison of Transit System and Contractor Positive Random Drug Test Results

In four out of the five job categories, contractors had a higher percent of positive random drug test results than did transit systems (see Table 3-7). The lone exception was the CDL/non-revenue vehicle category, in which the transit systems random positive percent was 1.94 percent and the contractor random positive percent was 0.72 percent.

Contractors conducted a total of 20,233 random drug tests. This is 18.67 percent of all random drug tests conducted. From these tests, contractors had a total of 373 positive results or 23.02 percent of the total number of positive random drug tests (1,620 positive tests). Overall, the employee category with the highest percent of positive random results was CDL/non-revenue vehicle personnel (1.76%). The employee category with the lowest percent of positive random test results was armed security personnel with 0.57 percent. The three remaining employee categories had overall positive rates between 0.90 and 1.63 percent.

	Transit System			Contractors			Totals		
	Number Specimens	Number Positive	Percent Positive	Number Specimens	Number Positive	Percent Positive	Number Specimens	Number Positive	Percent Positive
Revenue Vehicle Operation	57,762	814	1.41%	16,078	308	1.92%	73,840	1,122	1.52%
Vehicle and Equipment Maintenance	19,688	316	1.61%	2,096	40	1.91%	21,784	356	1.63%
Revenue Vehicle Control/Dispatch	5,930	46	0.78%	1,193	18	1.51%	7,123	64	0.90%
CDL/Non-Revenue Vehicle	3,296	64	1.94%	558	4	0.72%	3,854	68	1.76%
Security and Armed Guards	1,438	7	0.49%	308	3	0.97%	1,746	10	0.57%
<b>Totals</b>	<b>88,114</b>	<b>1,247</b>	<b>1.42%</b>	<b>20,233</b>	<b>373</b>	<b>1.84%</b>	<b>108,347</b>	<b>1,620</b>	<b>1.50%</b>

### 3.11 Comparison of Large Operator and Small Operator Positive Random Drug Test Results

In four of the five job categories, small operators (those operating in areas with populations of less than 200,000) had a higher percent of positive random drug test results than did large operators (those operating in areas with populations of more than 200,000) (see Table 3-8). In the remaining category (CDL/Non-Revenue Vehicle) the small operators' positive percentage was 1.6 and the large operators' positive percentage was 1.87, respectively. The largest disparity was in the Armed Security category, in which the small operators had a positive rate of 1.18%, compared to the large operators, which had a positive rate of .54%.

	Large			Small		
	Number of Specimens	Number Positive	Percent Positive	Number of Specimens	Number Positive	Percent Positive
Revenue Vehicle Operation	53,420	805	1.51%	20,420	317	1.55%
Vehicle and Equipment Maintenance	19,509	309	1.58%	2,275	47	2.07%
Revenue Vehicle Control/Dispatch	5,036	44	0.87%	2,087	20	0.96%
CDL/Non-Revenue Vehicle	2,355	44	1.87%	1,499	24	1.60%
Armed Security Personnel	1,661	9	0.54%	85	1	1.18%
<b>Totals</b>	<b>81,981</b>	<b>1,211</b>	<b>1.48%</b>	<b>26,366</b>	<b>409</b>	<b>1.55%</b>

## 4. ALCOHOL TEST RESULTS

This chapter provides background information on the alcohol testing procedures and a summary of the 1996 alcohol test results. Section 4.1 provides an introduction and explanation of the testing procedures and the consequences of a test result of  $\geq 0.02$ . This section also examines results of random testing. Sections 4.2 and 4.3 present a detailed examination of the findings according to test type and employee category. The other sections of the chapter include information on results by Federal Transit Administration (FTA) region, employees who refused testing, employees who were returned to duty, the violation rate, a comparison between transit systems and contractors, and a comparison between large and small operators.

### 4.1 Introduction

The FTA regulation prohibits covered employees who perform safety-sensitive functions from reporting to duty or staying on duty while having an alcohol concentration of  $\geq 0.02$ . In addition, employees are prohibited from using alcohol within 4 hours prior to performing safety-sensitive functions and from consuming alcohol while on-call. Because employees are prohibited from using alcohol while performing safety-sensitive functions, an employer who has knowledge that an employee is using alcohol must prohibit that

employee from performing these functions. (An on-call employee must be given the opportunity to acknowledge use of alcohol at the time he or she is called to duty and must be given an alcohol test if the employee claims to be able to perform his or her safety-sensitive function). The FTA provides two different sets of consequences (see Figure 4-1) should an alcohol confirmation test show that an employee's alcohol concentration is (1)  $\geq 0.02$  but  $< 0.04$ , or (2)  $\geq 0.04$ . A confirmation test result that shows an alcohol concentration of  $\geq 0.04$  results in the employee's removal from his or her safety-sensitive position. The alcohol concentration level is the alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath. Alcohol tests are conducted in two parts: a screening test followed by a confirmation test for those employees whose screening test results indicate a  $\geq 0.02$  alcohol concentration.

The data collected by the FTA from transit systems and contractors include information on both the number of screening tests conducted, the number of confirmation tests conducted, and the results from these confirmation tests. In this report, the alcohol test results are derived from the number of screening tests conducted and found to be  $\geq 0.04$ . The number of screening tests is used to better reflect accurate testing percentages. Because confirmation tests are only performed once a screening test has resulted in a result of  $\geq 0.02$ , to report rates of  $\geq 0.04$  out of confirmation tests would result in high and misleading percentages.

An employee with a concentration of  $\geq 0.02$  but  $< 0.04$  must be removed from his or her safety-sensitive position for 8 hours or until a retest shows an alcohol concentration of  $< 0.02$ .

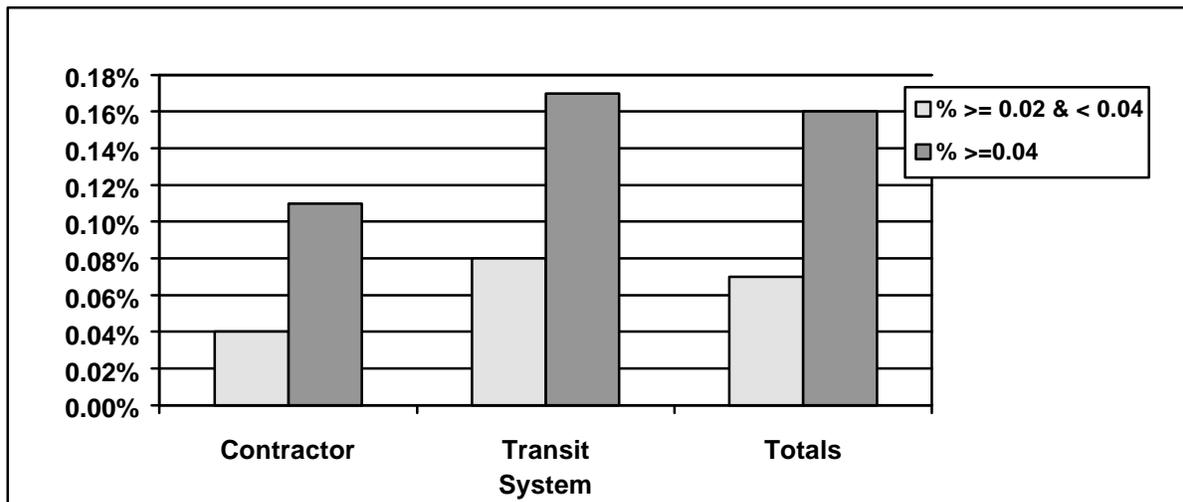
An employee with an alcohol concentration of  $\geq 0.04$  must be removed from his or her safety-sensitive position, be told about educational and treatment programs available, and be referred to a substance abuse professional.

**Figure 4-1. Consequences of an Alcohol Test for Covered Employees**

Table 4-1 shows the results of random alcohol testing for transit systems and contractors. Random alcohol testing was the type of test conducted most frequently (62,618 out of a total of 90,482 tests conducted). Although Table 4-1 shows the number of random “positives” for alcohol tests  $\geq 0.02$  but  $< 0.04$ , for reporting purposes, “true positives” are considered  $\geq 0.04$ .

<b>Table 4-1. Random Alcohol Test Results at Both Levels for Transit Systems and Contractors for 1996</b>					
<b>Employer</b>	<b>Total Screens</b>	<b>Number 0.02% - 0.04%</b>	<b>Number <math>\geq 0.04\%</math></b>	<b>Percent 0.02 - 0.04</b>	<b>Percent <math>\geq 0.04</math></b>
Contractors	11,280	4	12	0.04%	0.11%
Transit Systems	51,338	39	89	0.08%	0.17%
<b>Totals</b>	<b>62,618</b>	<b>43</b>	<b>101</b>	<b>0.06%</b>	<b>0.14%</b>

Figure 4-2 provides the random test results for transit systems and contractors and their combined totals at both the lower level (0.02 to  $< 0.04$ ) and at the higher level ( $\geq 0.04$ ) alcohol concentrations. Industry-wide, the occurrence of random alcohol test results at both the lower level of  $\geq 0.02$  but  $< 0.04$  (0.06%) and the higher level,  $\geq 0.04$  (0.16%), was very low. The results differed only slightly between transit systems and contractors. Transit systems had a slightly greater percent of random alcohol test results at both testing levels. At the higher level of  $\geq 0.04$ , contractors had 0.11 percent positive rate and transit systems had 0.17 percent positive rate. At the lower level, contractors had 0.04 percent and transit systems were slightly higher at 0.08 percent. Since there were a greater number of tests administered by transit systems, the number of random alcohol tests at  $\geq 0.04$  percent are also greater for transit systems (89) than for contractors (12).



**Figure 4-2. Percent of Random Alcohol Tests at Both Levels in 1996**

## 4.2 Results of Alcohol Testing Presented by Test Type

Alcohol test information was required from transit systems and their contractors for five test types: random, post-accident, reasonable suspicion, return-to-duty, and follow-up. The requirement to conduct pre-employment testing was suspended by the FTA as of May 10, 1995. However, some employers continued to submit data for pre-employment testing in 1996. In an effort to be comprehensive, the FTA is reporting these data as submitted.

Table 4-2 presents the alcohol test results, by test type and by employee category, for transit systems and contractors and identifies the combined totals industry-wide. This table also presents the number of screening tests administered, the number of test results at  $\geq 0.04$ , and the percent of test results at  $\geq 0.04$ .

The totals indicate that alcohol test results ranged from 0.03 percent for pre-employment to 8.22 percent for reasonable suspicion. However, discounting reasonable suspicion, all of the other test types had test results of  $\geq 0.04$  that were below 0.40 percent. For both the pre-employment and return-to-duty categories, only two alcohol test results at  $\geq 0.04$  were reported.

Table 4-2. Alcohol Test Results by Test Type and Employee Category for 1996									
	Transit Systems			Contractors			Totals		
Test Type	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>TOTALS BY TEST TYPE, ALL EMPLOYEE CATEGORIES</b>									
Pre-employment	4,676	2	0.04%	2,392	0	0.00%	7,068	2	0.03%
Random	51,338	89	0.17%	11,280	12	0.11%	62,618	101	0.16%
Post-Accident	9,218	13	0.14%	2,081	3	0.14%	11,299	16	0.14%
Reasonable Suspicion	936	61	6.52%	123	26	21.14%	1,059	87	8.22%
Return-to-duty	1,409	2	0.14%	80	0	0.00%	1,489	2	0.13%
Follow-Up	6,643	24	0.36%	306	3	0.98%	6,949	27	0.39%
<b>TOTALS</b>	<b>74,220</b>	<b>191</b>	<b>0.26%</b>	<b>16,262</b>	<b>44</b>	<b>0.27%</b>	<b>90,482</b>	<b>235</b>	<b>0.26%</b>
	Transit Systems			Contractors			Totals		
Employee Category	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>PRE-EMPLOYMENT</b>									
Revenue Vehicle Operations	3,385	2	0.06%	1,850	0	0.00%	5,235	2	0.04%
Vehicle and Equipment Maintenance	501	0	0.00%	339	0	0.00%	840	0	0.00%
Revenue Vehicle Control and Dispatch	166	0	0.00%	95	0	0.00%	261	0	0.00%
CDL/Non-Revenue Vehicle	427	0	0.00%	57	0	0.00%	484	0	0.00%
Security and Armed Guards	197	0	0.00%	51	0	0.00%	248	0	0.00%
<b>RANDOM</b>									
Revenue Vehicle Operations	33,644	52	0.15%	8,977	8	0.09%	42,621	60	0.14%
Vehicle and Equipment Maintenance	11,639	33	0.28%	1,168	2	0.17%	12,807	35	0.27%
Revenue Vehicle Control and Dispatch	3,147	2	0.06%	687	1	0.15%	3,834	3	0.08%
CDL/Non-Revenue Vehicle	1,922	2	0.10%	257	1	0.39%	2,179	3	0.14%
Security and Armed Guards	986	0	0.00%	191	0	0.00%	1,177	0	0.00%

Table 4-2. Alcohol Test Results by Test Type and Employee Category for 1996 (continued)									
Employee Category	Transit Systems			Contractors			Totals		
	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>POST-ACCIDENT</b>									
Revenue Vehicle Operations	8,171	13	0.16%	2,014	3	0.15%	10,191	16	0.16%
Vehicle and Equipment Maintenance	599	0	0.00%	39	0	0.00%	638	0	0.00%
Revenue Vehicle Control and Dispatch	168	0	0.00%	12	0	0.00%	180	0	0.00%
CDL/Non-Revenue Vehicle	190	0	0.00%	15	0	0.00%	205	0	0.00%
Security and Armed Guards	84	0	0.00%	1	0	0.00%	85	0	0.00%
<b>REASONABLE SUSPICION</b>									
Revenue Vehicle Operations	757	35	4.62%	110	20	18.18%	867	55	6.34%
Vehicle and Equipment Maintenance	102	11	10.78%	8	2	25.00%	110	13	11.82%
Revenue Vehicle Control and Dispatch	42	2	4.76%	4	3	75.00%	46	5	10.87%
CDL/Non-Revenue Vehicle	32	12	37.50%	1	1	100.00%	33	13	39.39%
Security and Armed Guards	3	1	33.33%	0	0	0.00%	3	1	33.33%
<b>RETURN-TO-DUTY</b>									
Revenue Vehicle Operations	947	1	0.11%	66	0	0.00%	1,013	1	0.10%
Vehicle and Equipment Maintenance	326	1	0.31%	8	0	0.00%	334	1	0.30%
Revenue Vehicle Control and Dispatch	28	0	0.00%	2	0	0.00%	30	0	0.00%
CDL/Non-Revenue Vehicle	75	0	0.00%	3	0	0.00%	78	0	0.00%
Security and Armed Guards	33	0	0.00%	1	0	0.00%	34	0	0.00%
<b>FOLLOW-UP</b>									
Revenue Vehicle Operations	4,069	12	0.29%	243	3	1.23%	4,312	15	0.35%
Vehicle and Equipment Maintenance	1,979	7	0.35%	54	0	0.00%	2,033	7	0.34%
Revenue Vehicle Control and Dispatch	238	1	0.42%	9	0	0.00%	247	1	0.40%
CDL/Non-Revenue Vehicle	315	4	1.27%	0	0	0.00%	315	4	1.27%
Security and Armed Guards	42	0	0.00%	0	0	0.00%	42	0	0.00%

#### **4.2.1 Pre-Employment Alcohol Test Results**

The FTA suspended the requirement for pre-employment alcohol testing as of May 10, 1995. The suspension of this test accounts for the low number of pre-employment tests administered and reported. Of the 7,068 pre-employment alcohol tests, only 2 (or 0.03%) were  $\geq 0.04$ . Both of these results occurred for revenue vehicle operators in transit systems. Because these tests were not required, and results were reported voluntarily, these reported results should not be considered reflective of industry-wide pre-employment alcohol testing.

#### **4.2.2 Random Alcohol Test Results**

Random testing was the most frequently conducted test industry-wide (62,618 of 90,482 tests or 69.20%), as shown in Table 4-2. Of the random alcohol tests conducted, 0.16 percent were  $\geq 0.04$ . For both transit systems and contractors, random testing was the most frequently conducted test, accounting for 69.17 percent and 69.36 percent of the tests administered, respectively. Almost all of the random test results of  $\geq 0.04$  occurred in one of two employee categories (revenue vehicle operation or revenue vehicle and equipment maintenance). In fact, these two categories account for 94.06 percent of all random test results  $\geq 0.04$  (95 out of 101). The armed security personnel category had no results  $\geq 0.04$  for transit systems or contractors.

#### **4.2.3 Post-Accident Alcohol Test Results**

Post-accident tests were performed most frequently after random tests, although they accounted for 12.49 percent of the overall tests (11,299 out of 90,482 tests). Post-accident test results  $\geq 0.04$  were 0.14 percent for both transit systems and contractors. The results  $\geq 0.04$  were found exclusively for the revenue vehicle operation employee category (16 tests).

#### **4.2.4 Reasonable Suspicion Alcohol Test Results**

Reasonable suspicion testing produced the highest percent of test results at  $\geq 0.04$  for transit systems and contractors, as well as industry-wide (6.52%, 21.14%, and 8.22%, respectively). However, while this test type accounted for the highest percent of results  $\geq 0.04$ , it was the least often administered test. In total, this test type accounted for 1,059 tests or 1.17 percent of all alcohol tests administered.

When examining the differences between transit systems and contractors, one can see that transit systems had only 6.52 percent test results  $\geq 0.04$ , whereas contractors had 21.14 percent. Within the employee categories, CDL/non-revenue vehicle had the highest percent of results  $\geq 0.04$  (39.39%). Revenue vehicle operations had the lowest percent of test results  $\geq 0.04$  (6.34%); however, since more tests were conducted on this employee category than any other category, the actual number of test results  $\geq 0.04$  were the highest in this category (55 compared to 13 for CDL/non-revenue vehicle).

#### **4.2.5 Return-to-Duty Alcohol Test Results**

Overall, 0.13 percent of the return-to-duty tests were  $\geq 0.04$ . Next to pre-employment testing, this test had the lowest percent of test results  $\geq 0.04$ . Of the 1,489 tests conducted industry-wide, all but 80 were conducted by transit systems. Only two test results  $\geq 0.04$  were detected overall, both in transit systems.

#### **4.2.6 Follow-Up Alcohol Test Results**

Follow-up testing resulted in 0.39 percent of tests at  $\geq 0.04$ . Of the 27 results  $\geq 0.04$ , 24 (88.89%) were for transit systems. Two employee categories account for most of the results  $\geq 0.04$ : revenue vehicle operation and revenue vehicle and equipment maintenance (22 out of 27 tests). No test results  $\geq 0.04$  were reported in the armed security personnel category for transit systems or contractors.

### **4.3 Results of Alcohol Testing Presented by Employee Category**

Table 4-3 presents the information for alcohol testing by employee category and test type for transit systems and contractors and identifies the combined totals industry-wide. This table shows the number of screening tests administered, the number of test results at  $\geq 0.04$ , and the percent of test results  $\geq 0.04$ . When examining each employee category, random tests were used as a measure because random tests were the most frequently conducted test and are therefore the most indicative of alcohol use in general by employees of transit systems and contractors.

There is some variation in the percent of random alcohol test results  $\geq 0.04$  among employee categories. The revenue vehicle equipment maintenance employee category had the highest percent of results  $\geq 0.04$  (0.27%). The revenue vehicle operation and CDL/non-revenue vehicle categories had the same results of 0.14 percent  $\geq 0.04$ . Revenue vehicle control/dispatch had a rate of 0.08 percent. Armed security personnel had no random test results  $\geq 0.04$  out of 1,177 tests performed.

Table 4-3. Alcohol Test Results by Employee Category and Test Type for 1996

	Transit Systems			Contractors			Totals		
	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>TOTALS BY EMPLOYEE CATEGORY, ALL TEST TYPES</b>									
Revenue Vehicle Operations	50,979	115	0.23%	13,260	34	0.26%	64,239	149	0.23%
Revenue Veh. and Equip. Maint.	15,146	52	0.34%	1,616	4	0.25%	16,762	56	0.33%
Revenue Veh. Control/Dispatch	3,789	5	0.13%	809	4	0.49%	4,598	9	0.20%
CDL/Non-Revenue Vehicle	2,961	18	0.61%	333	2	0.60%	3,294	20	0.61%
Armed Security Personnel	1,345	1	0.07%	244	0	0.00%	1,589	1	0.06%
<b>TOTALS</b>	<b>74,220</b>	<b>191</b>	<b>0.26%</b>	<b>16,262</b>	<b>44</b>	<b>0.27%</b>	<b>90,482</b>	<b>235</b>	<b>0.26%</b>
	Transit Systems			Contractors			Totals		
Test Type	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>REVENUE VEHICLE OPERATOR</b>									
Pre-employment	3,385	2	0.06%	1,850	0	0.00%	5,235	2	0.04%
Random	33,644	52	0.15%	8,977	8	0.09%	42,621	60	0.14%
Post-Accident	8,177	13	0.16%	2,014	3	0.15%	10,191	16	0.16%
Reasonable Suspicion	757	35	4.62%	110	20	18.18%	867	55	6.34%
Return-to-duty	947	1	0.11%	66	0	0.00%	1,013	1	0.10%
Follow-Up	4,069	12	0.29%	243	3	1.23%	4,312	15	0.35%
<b>REVENUE VEHICLE AND EQUIPMENT MAINTENANCE</b>									
Pre-employment	501	0	0.00%	339	0	0.00%	840	0	0.00%
Random	11,639	33	0.28%	1,168	2	0.17%	12,807	35	0.27%
Post-Accident	599	0	0.00%	39	0	0.00%	638	0	0.00%
Reasonable Suspicion	102	11	10.78%	8	2	25.00%	110	13	11.82%
Return-to-duty	326	1	0.31%	8	0	0.00%	334	1	0.30%
Follow-Up	1,979	7	0.35%	54	0	0.00%	2,033	7	0.34%

Table 4-3. Alcohol Test Results by Employee Category and Test Type for 1996 (continued)

Test Type	Transit Systems			Contractors			Totals		
	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04	Number of Screening Tests	Number of Results $\geq$ 0.04%	Percent $\geq$ 0.04
<b>REVENUE VEHICLE CONTROL/DISPATCH</b>									
Pre-employment	166	0	0.00%	95	0	0.00%	261	0	0.00%
Random	3,147	2	0.06%	687	1	0.15%	3,834	3	0.08%
Post-Accident	168	0	0.00%	12	0	0.00%	180	0	0.00%
Reasonable Suspicion	42	2	4.76%	4	3	75.00%	46	5	10.87%
Return-to-duty	28	0	0.00%	2	0	0.00%	30	0	0.00%
Follow-Up	238	1	0.42%	9	0	0.00%	247	1	0.40%
<b>CDL/NON-REVENUE VEHICLE</b>									
Pre-employment	427	0	0.00%	57	0	0.00%	484	0	0.00%
Random	1,922	2	0.10%	257	1	0.39%	2,179	3	0.14%
Post-Accident	190	0	0.00%	15	0	0.00%	205	0	0.00%
Reasonable Suspicion	32	12	37.50%	1	1	100.00%	33	13	39.39%
Return-to-duty	75	0	0.00%	3	0	0.00%	78	0	0.00%
Follow-Up	315	4	1.27%	0	0	0.00%	315	4	1.27%
<b>ARMED SECURITY PERSONNEL</b>									
Pre-employment	197	0	0.00%	51	0	0.00%	248	0	0.00%
Random	986	0	0.00%	191	0	0.00%	1,177	0	0.00%
Post-Accident	84	0	0.00%	1	0	0.00%	85	0	0.00%
Reasonable Suspicion	3	1	33.33%	0	0	0.00%	3	1	33.33%
Return-to-duty	33	0	0.00%	1	0	0.00%	34	0	0.00%
Follow-Up	42	0	0.00%	0	0	0.00%	42	0	0.00%

#### **4.3.1 Alcohol Test Results for Revenue Vehicle Operation Category**

As Table 4-3 demonstrates, more tests were conducted on revenue vehicle operators industry-wide (64,239 of 90,482 tests or 71.00%) than any other employee category. Transit systems administered 68.69 percent of their tests on revenue vehicle operators while the number for contractors was 81.54 percent.

Within the revenue vehicle operator employee category, reasonable suspicion testing accounted for the highest percent of test results  $\geq 0.04$  (6.34%). The percent of test results  $\geq 0.04$  for random testing and all other testing types was below 0.40 percent. Pre-employment testing was the lowest with only 2 test results  $\geq 0.04$  (0.04%). These results should not be considered reflective of industry-wide pre-employment testing results. Return-to-duty testing showed the lowest positive rate of  $\geq 0.04$  (0.11%). Contractors reported no pre-employment or return-to-duty test results  $\geq 0.04$  in this employee category. As noted above, little variation in the percent of test results  $\geq 0.04$  exists when comparing random testing results for the revenue vehicle operation category with other employee categories.

#### **4.3.2 Alcohol Test Results for Revenue Vehicle and Equipment Maintenance Category**

The percent of random alcohol test results at  $\geq 0.04$  for this employee category was 0.27 (35 of 12,807 tests)—the highest random rate recorded for all of the employee categories. Of the 35 random test results  $\geq 0.04$ , 33 (94.29%) were for transit system employees.

Within the revenue vehicle and equipment maintenance employee category, reasonable suspicion testing accounted for the highest percent of test results  $\geq 0.04$  (11.82%). Industry-wide, there were no pre-employment or post accident test results  $\geq 0.04$ . All of the other testing types had rates slightly higher than the random rate of 0.27 percent. In addition to pre-employment and post accident tests, contractor results show no return-to-duty or follow-up test results  $\geq 0.04$  in this job category.

#### **4.3.3 Alcohol Test Results for Revenue Vehicle Control/Dispatch Category**

Overall testing for transit systems and contractors in this job category resulted in 0.13 and 0.49 percent results  $\geq 0.04$ , respectively. This variation between transit systems and contractors is the greatest of any job category. Overall, the percent of random alcohol test results  $\geq 0.04$  for this employee category was 0.08 percent. Almost all of the tests conducted within this job category were random tests, which accounted for 83.38 percent of all testing. Within this employee category, reasonable suspicion had the highest percent of test results at  $\geq 0.04$  (10.87%). Three test types (pre-employment, post-accident, and return-to-duty) recorded no results  $\geq 0.04$ . Reasonable suspicion testing for contractors shows that 75.00 percent of those tested had a test result  $\geq 0.04$ , however, only 4 tests were administered.

#### 4.3.4 Alcohol Test Results for CDL/Non-Revenue Vehicle Category

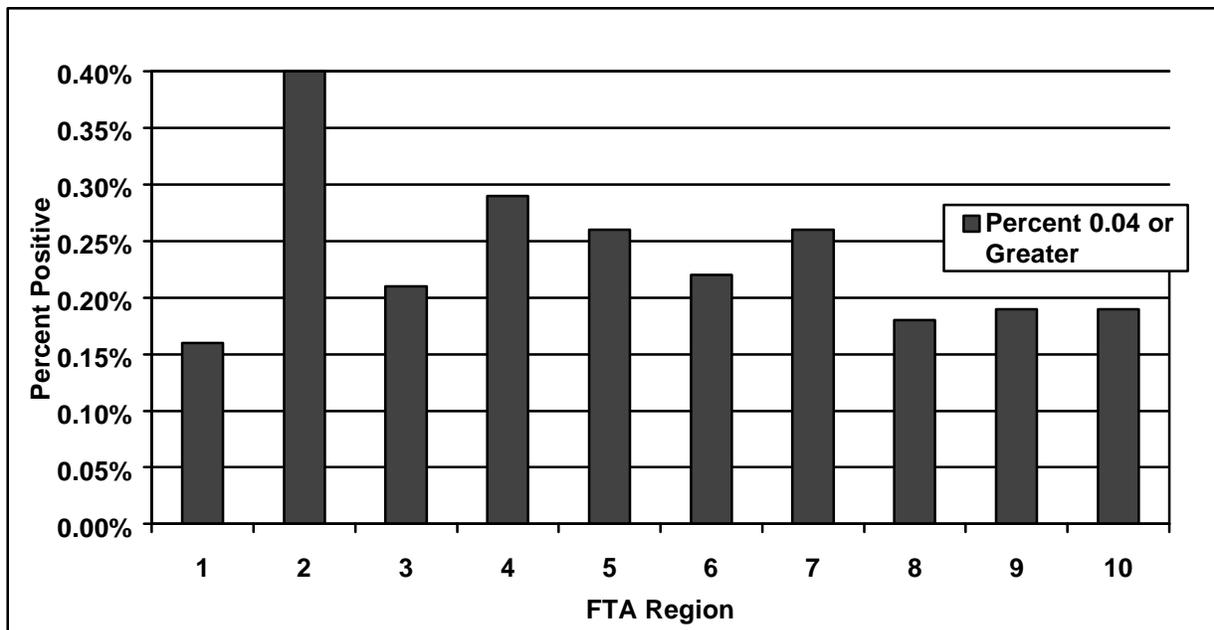
Industry-wide random testing in this employee category resulted in 0.14 percent of the tests being  $\geq 0.04$ . There were only 20 test results  $\geq 0.04$  for all test types within this employee category. Reasonable suspicion testing had the highest percent of test results  $\geq 0.04$  at 39.39 percent. However, it is important to note that reasonable suspicion testing only accounted for 33 of 3,294 tests and had 13 results  $\geq 0.04$ . No results  $\geq 0.04$  were found for pre-employment, post-accident, and return-to-duty testing in this employee category.

#### 4.3.5 Alcohol Test Results for Armed Security Personnel Category

Random testing in this employee category resulted in no test results  $\geq 0.04$ . There was only one test result  $\geq 0.04$  out of 1,589 (0.06%). This test was a reasonable suspicion test administered by a transit system. Armed security personnel was the employee category least tested, comprising only 1.8 percent of the total number of screening tests administered.

#### 4.4 Alcohol Test Results by FTA Region

This section presents alcohol test results by FTA Region. Figure 4-3 shows test results  $\geq 0.04$  combined across all alcohol test categories. Region 2 (at 0.40%) was over 0.10 percent higher than the next closest region. All of the other regions clustered between 0.16 percent (Region 1) and 0.29 percent (Region 4).



**Figure 4-3. Percent of Alcohol Test Results  $\geq 0.04$  by FTA Region for 1996**

#### 4.5 Employees Who Refused Alcohol Testing

The FTA regulations stipulate that no employer shall permit an employee who refuses to submit to a required alcohol test to perform safety-sensitive functions. Table 4-4 shows that the number of employees who refused to be tested for alcohol is small (79 employees vs. 90,482 tests administered). Of the 79 employees who refused testing, 58 percent (46) refused a non-random test.

<b>Alcohol Test Type</b>	<b>Number of Alcohol Tests Given</b>	<b>Number of Employees Who Refused Testing</b>
<b>Random</b>	62,618	33
<b>Non-Random</b>	27,864	46
<b>Total</b>	90,482	79

#### 4.6 Employees Returned to Duty

Transit systems reported that, of employees who engaged in alcohol misuse during 1995 and 1996 (as defined by FTA), 230 were returned to duty. Each individual had to undergo a return-to-duty test and have a result indicating an alcohol concentration  $< 0.02$ . However, the reported figure of 230 employees may not be a reliable number. This figure was the total of all responses to the question on the MIS form that instructed employers to record the number of employees who had engaged in alcohol misuse and were returned to duty during the reporting period. In another section of the form, employers were asked to record the total number of return-to-duty tests conducted; this figure was 1,489.

#### 4.7 Post-Accident Alcohol Test Results

Employers are required to report the number of accidents that resulted in a post-accident alcohol test indicating an alcohol concentration of  $\geq 0.04$ . Employers reported that there were 18 such accidents recorded during the reporting period. Furthermore, employers were required to report the results of their post-accident alcohol testing. Sixteen tests indicated alcohol levels  $\geq 0.04$  from the 11,299 tests conducted, as shown in Table 4-2.

#### 4.8 Violation Rate

The FTA alcohol testing rule defines the violation rate as: the number of random alcohol test results at the  $\geq 0.04$  concentration level plus the number of employees who refused a random test, divided by the total number of random tests plus the number of employees who refused a random test.

The formula below presents the violation rate for all employers (transit systems and contractors) as a whole:

$$\frac{\text{Random alcohol test results} \ddagger 0.04\% + \text{number refused random testing}}{\text{Total random tests} + \text{number refused random testing}} = \frac{(101 + 33)}{(62,618 + 33)} = \frac{134}{62,651} = 0.21\%$$

#### 4.9 Comparison of Transit System and Contractor Random Alcohol Test Results $\geq 0.04$

Table 4-5 presents a comparison of the random alcohol test results  $\geq 0.04$  for transit systems and contractors. In general, there is a close correlation for each employee category between transit systems and contractors. Of the 12,807 revenue vehicle and equipment maintenance employees tested, 90.88 percent were transit system personnel. Of the 35 test results  $\geq 0.04$ , all but two (33 out of 35 tests or 94.29%) were transit system personnel. Therefore, the ratio of transit system personnel in this category (90.88%) corresponds closely with the number of test results  $\geq 0.04$  (94.29%). The group of employees having the smallest number of tests was armed security personnel, with 1,177 tests administered. Contractors and transit systems showed no random test results  $\geq 0.04$  in the armed security personnel category. Overall, revenue vehicle and equipment maintenance had the highest percent of test results  $\geq 0.04$  (0.27%). In addition, transit systems administered 81.99 percent of all the random tests conducted. Of the 101 random test results  $\geq 0.04$  (for all employee categories), all but twelve were transit system employees (89 out of 101 or 88.12%). For transit systems, revenue vehicle equipment personnel had the highest percent of test results  $\geq 0.04$  (0.28%). For contractors, CDL non-revenue vehicle personnel had the highest percent of test results  $\geq 0.04$  (0.39%).

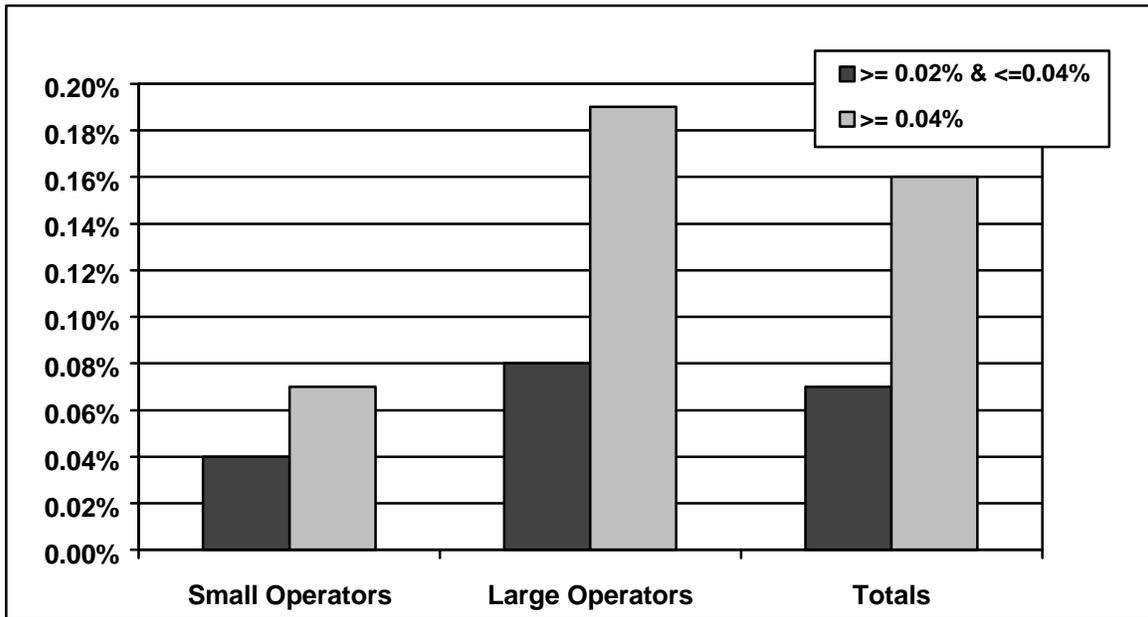
<b>Table 4-5. Comparison of Random Alcohol Test Results <math>\geq 0.04</math> by Employer Type and Employee Category for 1996</b>									
<b>Employee Category</b>	<b>Transit Systems</b>			<b>Contractors</b>			<b>Totals</b>		
	Number of Screening Tests	Number of Results $\geq 0.04$	Percent $\geq 0.04$	Number of Screening Tests	Number of Results $\geq 0.04$	Percent $\geq 0.04$	Number of Screening Tests	Number of Results $\geq 0.04$	Percent $\geq 0.04$
Revenue Vehicle Operation	33,644	52	0.15%	8,977	8	0.09%	42,621	60	0.14%
Revenue Vehicle and Equipment Maintenance	11,639	33	0.28%	1,168	2	0.17%	12,807	35	0.27%
Revenue Vehicle Control/Dispatch	3,147	2	0.06%	687	1	0.15%	3,834	3	0.08%
CDL/Non-revenue Vehicle	1,922	2	0.10%	257	1	0.39%	2,179	3	0.14%
Armed Security Personnel	986	0	0.00%	191	0	0.00%	1,177	0	0.00%
<b>Totals</b>	<b>51,338</b>	<b>89</b>	<b>0.17%</b>	<b>11,280</b>	<b>12</b>	<b>0.11%</b>	<b>62,618</b>	<b>101</b>	<b>0.16%</b>

#### 4.10 Comparison of Large Operator and Small Operator Random Alcohol Test Results $\geq 0.04$

A comparison of large operator and small operator random test results shows that large operators had a higher percentage of alcohol test results at  $\geq 0.04$  (0.19%) than did small operators (0.07%). Large operators had a higher percentage of random test results  $\geq 0.04$  in the revenue vehicle operation, revenue vehicle and equipment maintenance, and revenue vehicle control/dispatch categories. Both recorded no test results  $\geq 0.04$  for armed security personnel, while small operators had a higher percentage of test results  $\geq 0.04$  for the CDL/non-revenue vehicle category. Table 4-6 compares the random test results  $\geq 0.04$  for large and small operators by employee category.

Employee Category	Large Operators			Small Operators		
	Number of Screening Tests	Number of Results $\geq 0.04$	Percent $\geq 0.04$	Number of Screening Tests	Number of Results $\geq 0.04$	Percent $\geq 0.04$
Revenue Vehicle Operation	31,497	54	0.17%	11,124	6	0.05%
Revenue Vehicle and Equipment Maintenance	11,497	34	0.30%	1,310	1	0.08%
Revenue Vehicle Control/Dispatch	2,657	3	0.11%	1,177	0	0.00%
CDL Non-Revenue Vehicle	1,360	0	0.00%	819	3	0.37%
Armed Security Personnel	1,110	0	0.00%	67	0	0.00%
<b>Totals</b>	<b>48,121</b>	<b>91</b>	<b>0.19%</b>	<b>14,497</b>	<b>10</b>	<b>0.07%</b>

Figure 4-4 provides the random test results for large and small operators and their combined total at both the lower level (0.02 to  $< 0.04$ ) and at the higher level ( $\geq 0.04$ ) alcohol concentrations. Large operators had a higher percentage of random test results  $\geq 0.04$  for both levels of alcohol concentrations.



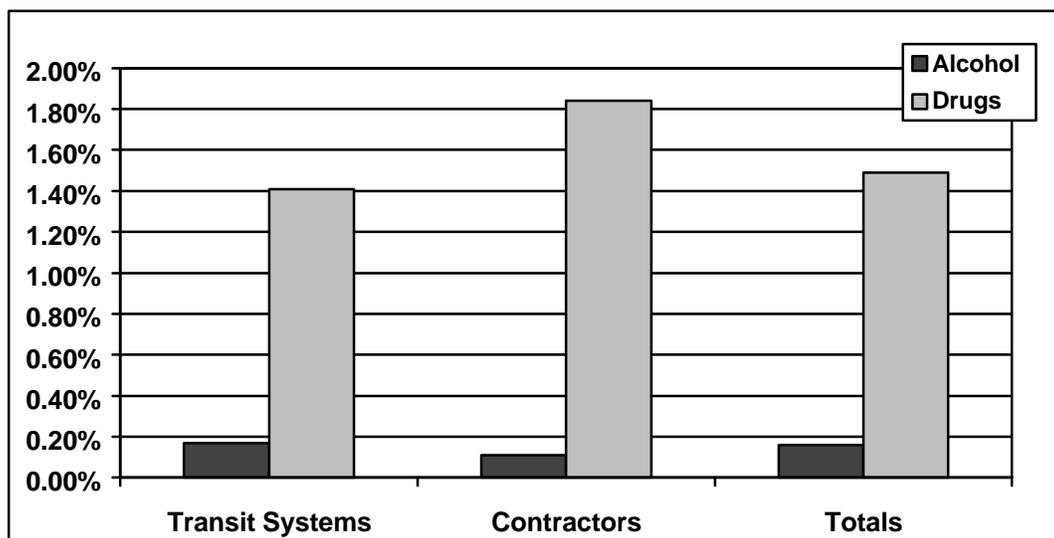
**Figure 4-4. Comparison of Percent of Random Alcohol Test Results at Both Levels in 1996 for Large and Small Operators**

## 5. COMPARISON OF DRUG AND ALCOHOL TEST RESULTS

This section compares the results of drug and alcohol testing conducted by transit systems and contractors. The comparisons provide information on the overall misuse of these substances by employee category, operator size, testing category (random and pre-employment only), and information about how many individuals tested positive for drugs and had an alcohol test result  $\geq 0.04$  at the same time.

### 5.1 Random Drug and Alcohol Test Results

Figure 5-1 presents random testing results for drugs and alcohol. The results are given separately for transit systems and contractors and as a combined total. The rate of positive random drug tests in transit systems was 1.42 percent, while the random alcohol tests  $\geq 0.04$  was 0.17 percent. The percentages of random drug positives were slightly higher for contractors (1.84%) than for transit systems, while the random alcohol test results  $\geq 0.04$  were slightly lower (0.11%).



**Figure 5-1. Comparison of 1996 Random Drug and Alcohol Test Results by Employer Type**

### 5.2 Results of Random Drug and Alcohol Tests by Employee Category

The percent of random positive drug test results for each employee category was higher than the percent of random alcohol test results  $\geq 0.04$ , as shown in Table 5-1. Exactly 1.50 percent of all random drug specimens collected were positive and 0.16 percent of random alcohol test results were  $\geq 0.04$ . CDL/non-revenue vehicle operators had the highest percentage of drug positives (1.76%) and vehicle and equipment maintenance had the highest percentage of alcohol test results  $\geq 0.04$  (0.27%). In addition, armed security personnel had the lowest positive percentages for both drug tests and for alcohol tests  $\geq 0.04$ . It should be noted that even the lowest positive

random test rate for drugs (0.57%) is higher than the highest random test result rate  $\geq 0.04$  for alcohol (0.27%).

<b>Table 5-1. Comparison of 1996 Random Drug and Alcohol Test Results by Employee Category</b>						
<b>Employee Category</b>	<b>Alcohol</b>			<b>Drugs</b>		
	<b>Number of Screens</b>	<b>Number of Results <math>\geq 0.04</math></b>	<b>Percent <math>\geq 0.04</math></b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>
<b>Revenue Vehicle Operations</b>	42,621	60	0.14%	73,840	1,122	1.52%
<b>Vehicle and Equipment Maintenance</b>	12,807	35	0.27%	21,784	356	1.63%
<b>Revenue Vehicle Control and Dispatch</b>	3,834	3	0.08%	7,123	64	0.90%
<b>CDL/Non-Revenue Vehicle</b>	2,179	3	0.14%	3,854	68	1.76%
<b>Security and Armed Guards</b>	1,177	0	0.00%	1,746	10	0.57%
<b>Totals</b>	<b>62,618</b>	<b>101</b>	<b>0.16%</b>	<b>108,322</b>	<b>1,620</b>	<b>1.50%</b>

As shown in Table 5-2, contractors had a slightly higher percentage of random drug test positives in four of the five employee categories. The one exception was for the CDL/non-revenue vehicle category, where the percent positive for transit system specimens was 1.94 percent and for contractors was 0.72 percent. This employee category was the highest percentage for transit systems, but the highest percentage of positive specimens for contractors was revenue vehicle operators at 1.92 percent. The percentage of alcohol test results  $\geq 0.04$  was lower for contractors and transit systems. Both had less than 0.20 percent  $\geq 0.04$  out of the total number of tests. The highest percentage of alcohol test results  $\geq 0.04$  for transit systems was vehicle and equipment maintenance personnel at 0.28 percent. The highest percentage of alcohol test results  $\geq 0.04$  for contractors was 0.39 percent for CDL/non-revenue vehicle operators, although this was only one test result out of 257 tests.

<b>Table 5-2. Comparison of 1996 Random Drug and Alcohol Test Results by Employer Type</b>						
	<b>Alcohol</b>					
	<b>Contractors</b>			<b>Transit Systems</b>		
<b>Employee Category</b>	<b>Number of Screens</b>	<b>Number ≥ 0.04</b>	<b>Percent ≥ 0.04</b>	<b>Number of Screens</b>	<b>Number ≥ 0.04</b>	<b>Percent ≥ 0.04</b>
Revenue Vehicle Operations	8,977	8	0.09%	33,644	52	0.15%
Vehicle and Equipment Maintenance	1,168	2	0.17%	11,639	33	0.28%
Revenue Vehicle Control and Dispatch	687	1	0.15%	3,147	2	0.06%
CDL/Non-Revenue Vehicle	257	1	0.39%	1,922	2	0.10%
Security and Armed Guards	191	0	0.00%	986	0	0.00%
<b>Totals</b>	<b>11,280</b>	<b>12</b>	<b>0.11%</b>	<b>51,338</b>	<b>89</b>	<b>0.17%</b>
	<b>Drugs</b>					
	<b>Contractors</b>			<b>Transit Systems</b>		
<b>Employee Category</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>
Revenue Vehicle Operations	16,078	308	1.92%	57,762	814	1.41%
Vehicle and Equipment Maintenance	2,096	40	1.91%	19,688	316	1.61%
Revenue Vehicle Control and Dispatch	1,193	18	1.51%	5,930	46	0.78%
CDL/Non-Revenue Vehicle	558	4	0.72%	3,296	64	1.94%
Security and Armed Guards	308	3	0.97%	1,438	7	0.49%
<b>Totals</b>	<b>20,233</b>	<b>373</b>	<b>1.84%</b>	<b>88,114</b>	<b>1,247</b>	<b>1.42%</b>

### 5.3 Results of Random Drug and Alcohol Tests by Operator Size

Both large and small operators averaged about 1.50 percent positive for all of the random specimens collected for drugs, as presented in Table 5-3. Vehicle and equipment maintenance personnel accounted for the highest percentage of random drug positives for small operators (2.07%), while CDL/non-revenue vehicle personnel had the highest percentage of random positive drug tests for large operators (1.87%). The percentage of the total alcohol test results  $\geq 0.04$  for large operators was only slightly higher (0.19%) than small operators (0.07%). Only three of the five employee categories recorded alcohol test results  $\geq 0.04$  for both types of operators. Only CDL/non-revenue vehicle operators (0.37%), vehicle and equipment maintenance (0.08%) and revenue vehicle operators (0.05%) reported alcohol test results  $\geq 0.04$  for small operators. Large operators reported alcohol test results  $\geq 0.04$  for vehicle and

equipment maintenance (0.30%), revenue vehicle operators (0.17%) and revenue vehicle control and dispatchers (0.11%).

<b>Table 5-3. Comparison of 1996 Random Drug and Alcohol Test Results by Operator Size</b>						
	<b>Alcohol</b>					
	<b>Large Operator</b>			<b>Small Operator</b>		
<b>Employee Category</b>	<b>Number of Screens</b>	<b>Number ≥ 0.04</b>	<b>Percent ≥ 0.04</b>	<b>Number of Screens</b>	<b>Number ≥ 0.04</b>	<b>Percent ≥ 0.04</b>
Revenue Vehicle Operations	31,497	54	0.17%	11,124	6	0.05%
Revenue Vehicle and Equipment Maintenance	11,497	34	0.30%	1,310	1	0.08%
Revenue Vehicle Control and Dispatch	2,657	3	0.11%	1,177	0	0.00%
CDL/Non-Revenue Vehicle	1,360	0	0.00%	819	3	0.37%
Armed Security Personnel	1,110	0	0.00%	67	0	0.00%
<b>Totals</b>	<b>48,121</b>	<b>91</b>	<b>0.19%</b>	<b>14,497</b>	<b>10</b>	<b>0.07%</b>
	<b>Drugs</b>					
	<b>Large Operator</b>			<b>Small Operator</b>		
<b>Employee Category</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>	<b>Number of Specimens</b>	<b>Number Positive</b>	<b>Percent Positive</b>
Revenue Vehicle Operations	53,420	805	1.51%	20,420	317	1.55%
Revenue Vehicle and Equipment Maintenance	19,509	309	1.58%	2,275	47	2.07%
Revenue Vehicle Control and Dispatch	5,036	44	0.87%	2,087	20	0.96%
CDL/Non-Revenue Vehicle	2,355	44	1.87%	1,499	24	1.60%
Armed Security Personnel	1,661	9	0.54%	85	1	1.18%
<b>Totals</b>	<b>81,981</b>	<b>1,211</b>	<b>1.48%</b>	<b>26,366</b>	<b>409</b>	<b>1.55%</b>

#### **5.4 Accidents That Resulted in a Positive Post-Accident Drug Test or an Alcohol Test Result ≥ 0.04**

Transit systems and contractors were required by the FTA to report the number of accidents that resulted in a positive post-accident drug test and/or an alcohol test result  $\geq 0.04$  and data on post-accident testing of employees involved in both fatal and non-fatal accidents. There were 239 accidents reported that resulted in positive post-accident drug tests. One of these accidents was fatal. The fatal accident with a positive post-accident drug test caused a single fatality. All of the 18 accidents resulting in post-accident alcohol tests with results  $\geq 0.04$  were non-fatal.

#### **5.5 Pre-Employment Positions Denied**

All employees performing safety-sensitive functions are required to pass a pre-employment drug test before beginning employment. According to FTA regulations, employers were no longer required to administer pre-employment alcohol tests as of May 10, 1995. However, some employers continued to conduct the tests in 1996 despite the repeal of the testing regulation.

Because pre-employment alcohol testing was not a requirement in 1996, the data that were submitted voluntarily cannot be considered a dependable representation of the industry as a whole, and those results are not reported here.

The reported pre-employment drug testing results indicate that employers consistently denied prospective employees safety-sensitive positions when they tested positive for drugs as presented in Figure 5-2. Prospective employees testing positive for drugs were denied a position 93.89 percent of the time. It is assumed that the 109 employees who tested positive for drugs on pre-employment tests but who were not denied employment were subsequently administered another pre-employment drug test with a negative test result.



**Figure 5-2. Applicants Denied Positions After a Positive Pre-Employment Drug Test in 1996**

### **5.6 Employees Who Tested Positive for Drugs and had an Alcohol Test Result $\geq 0.04$**

Employers were required to provide the FTA with the number of employees who tested positive for drugs and had an alcohol test result  $\geq 0.04$  at the same time. A total of 12 employers (including transit systems and contractors) reported that they had a total of 24 employees who tested positive for drugs and had an alcohol test result of  $\geq 0.04$  at the same time.

## **6. COMPARISON OF RESULTS FROM 1995 TO 1996**

This chapter compares the results of drug and alcohol testing conducted by all of those operators who reported in 1995 and 1996. Note that in 1995 only large operators (those operating in areas with populations of over 200,000) were required to report; a total of 548 individual employers did so. In 1996, both large operators and small operators (those operating in areas with populations of under 200,000) were required to report; a total of 2,287 individual employers submitted forms.

### **6.1 Random Drug and Alcohol Test Results (1995 - 1996)**

In 1995, the overall percent of random alcohol test results  $\geq 0.04$  was 0.17 percent. In 1996, the overall percent of random alcohol test results  $\geq 0.04$  was 0.16 percent. This change reflects a decrease of nearly 6 percent in the overall rate of random alcohol test results  $\geq 0.04$ . In 1995, the violation rate was 0.24 percent. The violation rate is the number of random alcohol test results  $\geq 0.04$  plus the number of participants who refused a random test divided by the total number of random tests plus the number of participants who refused a random test. In 1996, that figure dropped to 0.21 percent, nearly a 13 percent decrease.

For drug testing, the overall percent of positive random test results was 1.73 percent in 1995, as compared to 1.50 percent in 1996. This change reflects a decrease of 13 percent in the overall rate of positive random drug test results. For transit systems, the random rate in 1995 was 1.69 percent for positive drug test results and 0.18 percent for alcohol test results at  $\geq 0.04$ . In 1996, the random rate for transit systems was 1.42 percent for positive drug test results and 0.17 percent for alcohol test results  $\geq 0.04$ . This change reflects a decrease of nearly 16 percent in the rate of positive random drug test results and a decrease of nearly 6 percent in the rate of random alcohol test results  $\geq 0.04$ . In 1995, the random positive rate for contractors was 2.02 percent for drug testing and 0.06 percent for alcohol testing. In 1996, the random positive rate for contractors was 1.84 percent for drug testing and 0.11 percent for alcohol testing. This change reflects a decrease of 0.18 percent in the rate of positive random drug test results, and an increase of 0.05 percent in the rate of positive random alcohol test results. In analyzing these results, it must be noted that the individual contractors who report their results may change from year to year.

### **6.2 Random Drug Test Results by Employee Category (1995 - 1996)**

In 1996, the positive random drug test result rate was within 0.40 percentage points of the 1995 rate for all five employee categories. The positive random drug test result rate decreased in four of the five employee categories. The CDL/non-revenue vehicle personnel category showed an increase over the 1995 positive random drug test result rate of 0.22 percentage points. Of the remaining employee categories, the percentage point difference (1995 vs. 1996) is greatest in the revenue vehicle and equipment maintenance category (-0.40%) and smallest in the armed security personnel category (-0.04%), as illustrated in Table 6-1.

**Table 6-1. Comparison of Positive Random Drug Test Results  
for 1995 and 1996**

Employee Category	Percent Positive		Percent Change
	1995	1996	1995-1996
Revenue Vehicle Operation	1.71%	1.52%	-11.11%
Revenue Vehicle and Equipment Maintenance	2.04%	1.63%	-20.10%
Revenue Vehicle Control and Dispatch	1.19%	0.90%	-24.37%
CDL/Non-Revenue Vehicle	1.55%	1.76%	13.55%
Armed Security Personnel	0.61%	0.57%	-6.56%

### 6.3 Random Alcohol Test Results by Employee Category (1995 - 1996)

For random alcohol testing, the change between the 1995 and 1996 rate of random alcohol test results  $\geq 0.04$  was less than 0.10 percentage points for all five employee categories. In three of the five employee categories, the rate of random alcohol test results  $\geq 0.04$  decreased, and in one category (revenue vehicle operation) the rate of random alcohol tests  $\geq 0.04$  was unchanged. The two categories which reflected increases over the 1995 random alcohol test result rate were the revenue vehicle control/dispatch and CDL/non-revenue vehicle personnel categories. These categories reflected increases of 0.04 percent and 0.07 percent, respectively. Note that the CDL/non-revenue vehicle category showed an increase for both random alcohol and random drug testing in 1996. Of the remaining employee categories, the percentage point difference (1995 vs. 1996) is highest in the armed security personnel category (-0.08), as illustrated in Table 6-2.

**Table 6-2. Comparison of Random Alcohol Test Results  $\geq 0.04$   
for 1995 and 1996**

Employee Category	Percent Positive		Percent Change
	1995	1996	1995-1996
Revenue Vehicle Operation	0.14%	0.14%	0.00%
Revenue Vehicle and Equipment Maintenance	0.31%	0.27%	-11.04%
Revenue Vehicle Control and Dispatch	0.04%	0.08%	114.16%
CDL/Non-Revenue Vehicle	0.07%	0.14%	103.07%
Armed Security Personnel	0.08%	0.00%	-100.00%

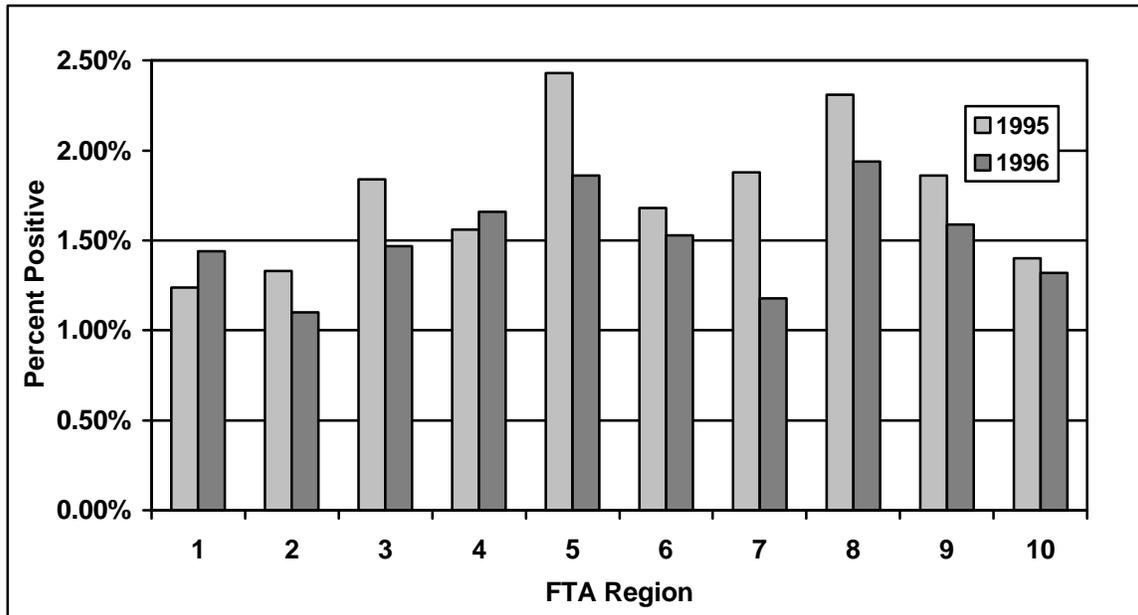
#### **6.4 Accidents that Resulted in a Positive Post-Accident Alcohol Test Result $\geq$ 0.04 (1995 - 1996)**

In 1995, a total of 13 accidents were reported which resulted in a post-accident alcohol test result  $\geq$  0.04. These positive test results were found exclusively within transit systems, and accounted for 0.20 percent of all post-accident tests administered. In 1996, a total of 18 accidents were reported that resulted in a post-accident alcohol test result  $\geq$  0.04. Of these, 15 were reported by transit systems and 3 were reported by contractors. The total percent of post-accident alcohol tests with a result  $\geq$  0.04 in 1996 was 0.14 percent. This result indicates an overall decrease of 0.06 percentage points as compared to the 1995 data. For post-accident drug testing, 147 accidents were reported in 1995 which resulted in a positive post-accident drug test. Of those accidents, 125 were reported by transit systems, and 22 were reported by contractors. The total percent positive for post-accident drug testing in 1995 was 2.17 percent. In 1996, 239 accidents were reported that resulted in a positive post-accident drug test. Of those, 166 were reported by transit systems and 73 were reported by contractors. The total percent positive for post-accident drug testing in 1996 was 2.09 percent. This result reflects an overall decrease of 0.08 percentage points over the 1995 results for post-accident drug tests.

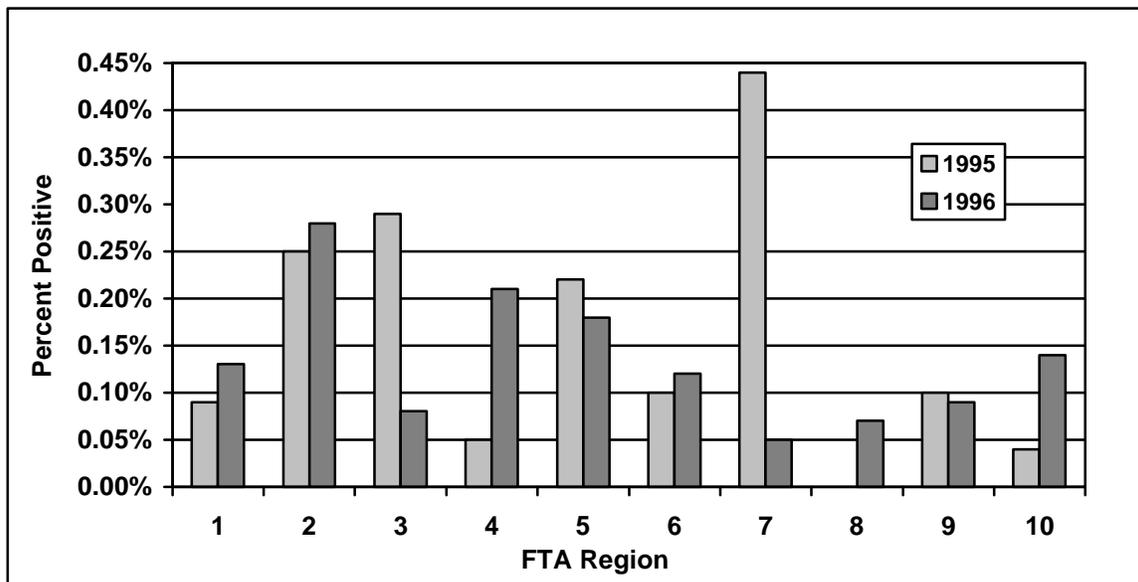
#### **6.5 Changes in the Rate of Positive Random Test Results by FTA Region (1995 -1996)**

The rate of positive random drug tests decreased from 1995 to 1996 in eight of the ten FTA regions. In regions 1 and 4, the positive random drug test result rate increased by 0.20 and 0.10 percentage points, respectively. Of the eight regions to show a decrease, the greatest percentage point difference was in region 7, which decreased by 0.70 percentage points in 1996. The smallest percentage point difference was in region 10, which decreased by 0.08 percentage points in 1996. All of the remaining regions showed decreases of between 0.15 and 0.56 percentage points, as shown in Figure 6-1.

For random alcohol testing, 6 of the 10 FTA regions showed an increase in the rate of test results  $\geq$  0.04, although none showed an increase of greater than 0.16 percentage points. Of the four remaining FTA regions, three (regions 3, 5, and 7) showed a decrease in the rate of random alcohol test results  $\geq$  0.04, and one (region 9) showed no change. Of the three regions showing a decrease, the greatest percentage point difference was reported in region 7, which decreased by 0.40 percentage points. The smallest percentage point difference was reported in region 5, which decreased by 0.03 percentage points, as shown in Figure 6-2.



**Figure 6-1. Comparison of Positive Random Drug Test Results by FTA Region for 1995 and 1996**



**Figure 6-2. Comparison of Random Alcohol Test Results  $\geq 0.04$  by FTA Region for 1995 and 1996**

**APPENDIX A**

**GLOSSARY OF COMMON TERMS**

## GLOSSARY OF COMMON TERMS

**CDL/Non-Revenue Vehicle:** Job category including any transit employee who holds a Commercial Driver's License (CDL) and performs a function requiring a CDL and who is not included in any other job category.

**Confirmation Test:** Performed if the results of an alcohol screening test are equal to or greater than 0.02.

**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.

**Employer:** A recipient or other entity that provides mass transportation services or which 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 returned to duty in a safety-sensitive position following a positive drug test result or an alcohol test result of  $\geq 0.04$ . A minimum of six tests must be performed during the first 12 months after the employee returned to duty.

**Large Operator:** A recipient or subrecipient primarily operating in an area of 200,000 or more in population.

**Post-Accident Testing:** Required for prohibited drugs and alcohol following certain mass transit accidents. These include when an individual dies, medical treatment away from the scene is required, or those in which one or more of the vehicles involved incurs disabling damage.

**Pre-Employment Testing:** Identifies 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. Drug tests equal to 50 percent of the total number of safety-sensitive employees and alcohol tests equal to 25 percent of the total number of safety-sensitive employees must be conducted each year by this method.

**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 Federal financial assistance under Section 5307, 5309, or 5311 of the Federal Transit Act or under sections 103(e)(4) of title 23 of the U.S. Code.

**Return-to-Duty Testing:** Required before any 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 activity that violates the regulation.

**Revenue Vehicle Control and Dispatch:** Job function including any person who controls the 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.

**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 Commercial Driver's License
- 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
- Carrying a firearm for security purposes.

**Screening Test:** Initial test that determines the level of alcohol in an employee's system.

**Security and Armed Guards:** Function including any person who provides security to protect persons or property and who carries a firearm.

**Small Operator:** A recipient or subrecipient primarily operating in an area of less than 200,000 in population.

**Transit System:** 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 Negative (drug test result):** A drug test result reviewed by a medical review officer and determined to have no evidence of prohibited drug use.

**Verified Positive (drug test result):** A drug test result reviewed by a medical review officer and determined to have evidence of prohibited drug use.

**APPENDIX C**

**FTA REGIONS**

## FTA Regions

The Federal Transit Administration comprises the 10 regions identified below. The data provided by these regions has facilitated the comparison of drug and alcohol test results and the identification of regional trends and patterns.

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

<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>	<b>Region 4</b>	<b>Region 5</b>
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	
<b>Region 6</b>	<b>Region 7</b>	<b>Region 8</b>	<b>Region 9</b>	<b>Region 10</b>
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	

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**APPENDIX B**

**MIS DATA COLLECTION FORMS**