

Implications of Transit Drug Testing and Maintenance Service Procurement for Small Urban and Rural Systems

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In recognition that drug use in the workplace is a pervasive problem, in 1986 an executive order was signed by the president calling for a drug-free workplace. As a result, the U.S. Department of Transportation, in September 1987, became the first executive agency to adopt a drug-testing policy. The origins and current status of transit industry drug-testing requirements for safety-sensitive workers are reviewed. Drug testing has been shown to effectively discourage the abuse of drugs. Currently, UMTA's drug-testing requirements have been suspended. Congress is expected, however, to provide UMTA the authority to reinstate drug-testing requirements. Small urban and rural transit agencies are concerned that the implementation and enforcement of drug-testing guidelines and regulations will place a severe and disproportionate administrative burden on them. Testing requirements are perceived by some as rendering it difficult or impossible to purchase maintenance and other support services. Most small agencies that buy maintenance services currently do so through small purchase agreements. They do not purchase services through the competitive bidding process. To examine the accuracy of the perception of the drug-testing issue in the transit industry, a limited number of agencies that competitively bid and procure maintenance services were surveyed. Data collected indicate that maintenance service contractors are generally willing to comply with drug-testing requirements. Furthermore, most reported good service and indicated that they had accrued cost savings through competitively awarded maintenance contracts.

The original U.S. Department of Transportation (DOT) drug-testing requirements for transit workers in safety-sensitive areas were issued in November 1988. They were to be implemented on December 21, 1989, at transit systems in urban areas with populations greater than 200,000 (1). Transit systems serving urban areas with populations less than 200,000 were to certify compliance by December 21, 1990, and states were to certify compliance by their rural transit subgrantees by December 21, 1990. [Rural transit operations (in areas with urban populations less than 50,000) receive funds through Section 18 of the Urban Mass Transportation Act of 1964, as amended. However, states are the recipients of these funds, and the transit agencies are subgrantees. Therefore, the state is the grantee of the federal government, and the state must certify compliance with drug testing.]

After several challenges to the legality of drug testing, the Amalgamated Transit Union won a judgment to suspend UMTA's authority to require drug testing. The U.S. Court of Appeals unanimously ruled that when Congress added Sec-

tion 22 (Safety Authority) to the Urban Mass Transportation Act of 1964, it intended to give UMTA the authority to deal with safety hazards in "a manner that requires case-by-case development of local solutions." It was not intended to do so "via federally mandated, uniform rulemaking procedures that may not be responsive to concerns at the local level" (*Amalgamated Transit Union et al. versus Samuel K. Skinner, Secretary of Transportation*, United States Court of Appeals for the District of Columbia Circuit, argued December 14, 1989, and decided January 19, 1990, pp. 14–15).

The drug-testing rules are currently suspended, and DOT has authored legislation to grant UMTA authority to address and resolve safety problems through a federal mandate (2). Another version of the drug-testing bill expanded UMTA's authority to include additional testing for alcohol (3). Regardless of the exact language of the final bill, it is likely that drug testing will be reinstated.

There is evidence that many urban transit system managers and employees view drug testing as another necessary administrative burden for their safety-sensitive, labor-intensive industry. The American Public Transit Association Drug and Alcohol Task Force has conducted a survey of the drug-testing practices of approximately 450 urban transit systems (4). Of 240 agencies responding to the survey, 155 had initiated drug-testing programs before or shortly after the December 21, 1989, deadline for transit systems serving large urban areas. Of the 155, approximately 80 percent have continued to test even though UMTA's requirement has been suspended. These results suggest that most urban transit systems that have adopted drug-testing procedures recognize the growing consequences of drug abuse in the workplace. Twenty-six of the agencies surveyed had implemented drug-testing programs as early as 1985, 4 years before UMTA's requirements.

Rural agencies have been more reluctant than their large, urban counterparts to adopt drug-testing programs. It has been argued that drug testing creates a costly administrative burden that far outweighs the promised safety benefits (5). In addition, small systems are less self-sufficient and more often dependent on contractors' support services for maintenance, fueling, emergency services, and so forth. Small rural systems, for example, say that they would find it difficult, if not impossible, to impose and enforce drug testing on their contractors.

The issues concerning the difficulty of enforcing drug-testing requirements on contractors working for small transit

systems are critical. Convincing arguments are set forth that the administrative costs of drug testing are a burden for very small transit systems (e.g., those systems with fewer than eight vehicles). However, the research findings described in this paper indicate that even small systems can find support service contractors that are willing to comply with drug testing if they procure services by awarding contracts competitively. It is also likely that transit systems will accrue cost savings as a result of competitively contracting for support services (if they are not already purchasing services through competitively bid, written contracts).

The researchers identified and interviewed 23 transit operators that procure support services (maintenance or maintenance plus some aspect of route operations) through competitive awards of contracts. Of those that had discussed drug testing with their contractors, the majority found that the contractor was willing to comply. In addition, most reported good service and have accrued cost saving through competitive contracting.

DRUG TESTING ORIGINS: HISTORICAL CONTEXT

Drug abuse is a serious problem for public-sector service providers and industry. It is estimated that drug abuse costs the economy \$26 billion annually (6). More than \$16 billion of the cost is in industry and work-related activities and is due to such factors as lost productivity, absenteeism, disability claims, and theft (6). The National Council on Alcoholism sets the cost to industry of alcohol abuse at approximately \$20 billion annually (6). Employees with alcohol problems may cost their employers as much as \$2,500/year in production losses and absenteeism (6).

The Federal Railroad Administration recorded evidence of alcohol and drug-related accidents occurring between 1975 and 1983. Their data indicated that these accidents resulted in 34 fatalities, 66 nonfatal injuries, and \$28 million in lost railroad property and direct costs (7). Craft Consultants, a drug education and counseling firm, estimates that 4 million workers abusing drugs in the workplace have been referred for treatment within the past few years (6).

Despite the extensive level of research conducted in the area of work-related drug and alcohol abuse problems, the exact costs to industry and public agencies are not easily quantifiable. It is often difficult, for example, to identify the effects of drug and alcohol abuse on productivity, absenteeism, and employee turnover rates. These kinds of costs are intangible and difficult to examine objectively.

Because the effects of drug abuse are clearly significant, small and large transit agencies alike are faced with developing quality employee assistance programs to screen and identify high-risk employees. A negative message that may be perceived is that such programs stress punishment instead of recovery. The issues surrounding drug testing, therefore, must be realistically addressed, balancing employee rights against public confidence in the safety of public transportation.

Given the seriousness of the productivity losses and the potential decline in public safety, agency actions to curb drug and alcohol abuse by employees in the workplace are needed. Employers who are combating drug abuse problems are most

likely to maintain a high success rate if they initiate educational programs for their employees. This tends to enhance confidence among employees, management, and the public, because it emphasizes treatment rather than punishment.

Drug Testing Precedents

In 1981 the military began a program of random drug testing. As a result, from 1982 to 1988 there was an 82 percent reduction in drug use (8). The Coast Guard has also had success with random testing. On implementation of a drug-testing policy, positive tests for drugs were reduced from 10.3 percent in 1983 to 2.8 percent in 1988 (9). Evidence of the effectiveness of drug testing in the military and the Coast Guard is clear. These results, coupled with the gravity of the drug problem, ultimately led to increased societal support for drug testing.

In 1986, President Reagan signed Executive Order 12564, which calls for a drug-free workplace emphasizing public health, safety, and national security. DOT, in September 1987, became the first executive agency to adopt a drug-testing policy. Rules for drug testing by all administrations of DOT were first published in the November 21, 1988, issue of the *Federal Register* (10). Whereas test cases in the court system have indicated that most DOT administrations have the authority to mandate drug testing, UMTA does not. Its drug-testing rules are currently suspended. It is, however, likely that Congress will eventually provide UMTA with the authority to mandate drug testing and that future drug-testing rules will look much like the original rules.

Who Is Subject to Screening for Drugs?

UMTA's suspended drug-testing program is limited to employees in agencies whose responsibilities affect the safety and security of the public. Employees in safety-sensitive positions include those providing support in vehicle operation activities such as revenue vehicle movement control, including dispatchers and others working in safety and safety-training positions, and revenue vehicle inspection and maintenance personnel, including mechanics and technicians who perform inspection and maintenance work on revenue vehicles or their components.

Contract service employees are subject to testing if their work is ongoing, continuous, and routine. There must be a "relationship" between the agency and the service contractor, and the agency must certify that the contractor is conforming to the drug-testing requirements. A relationship is construed to include such things as a small purchase agreement to purchase fuel from a local service station. It does not include emergency services such as a call to a local service station to repair a flat tire during a road call. Any maintenance service contract that involves functions such as servicing, fueling, inspection, and preventive maintenance of revenue vehicles, however, is covered by the UMTA rule.

Nonvehicle maintenance support, including passenger shelters and equipment, and communication systems are also covered under the UMTA rule. Supervisory personnel subject to the UMTA rule include those who supervise employees performing any of the services mentioned above.

Goals of Drug Testing in the Public Transportation Industry

The primary goal of drug testing in public transportation is to identify, using objective criteria, employees who pose a threat to public safety. By using this controversial policy to curb the abuse of drugs in the workplace, confidence in public transportation is more likely to be sustained.

Procedural Guidelines for Drug Testing

In March 1989, UMTA began requiring any transit agency receiving federal financial assistance through Sections 3, 9, or 18 of the Urban Mass Transportation Act of 1964, as amended, to establish antidrug programs consisting of

- A policy statement on drug use in the workplace;
- An employee and supervisor education and training program;
- A drug-testing program for employees and applicants for employment in safety-sensitive positions; and
- Administrative actions for record keeping, reporting, release of information, certification of compliance, and requests for waivers.

It granted \$740,000 to provide several states with funds to develop comprehensive demonstration models of drug-free programs (11). These procedural documents and courses provide much direction for UMTA's drug-testing rules and procedures. It is easy to understand why a small transit agency manager would feel overwhelmed by all the administrative details in the guidelines. The detail is necessary to ensure prudent, equitable, and unbiased application of drug testing. For brevity, only three pivotal procedural aspects are described below.

Drugs Evaluated by Tests

The drugs covered under UMTA regulations include cocaine, heroin, amphetamines, marijuana, and Phencyclidine (PCP). Urinalysis is used to determine the presence of drugs. Testing for additional drugs is permissible but may be problematic. If employers choose to test for other drugs, including alcohol, they can do so if they follow correct procedures designated for the particular drug or alcohol. If they do so, however, a separate sample must be taken. The DOT sample cannot be used for this purpose, and the Department of Health and Human Services does not certify laboratories for analyzing drugs beyond the five prescribed by UMTA. A recent article (12) pointed out that

in the drug testing area, DOT felt it necessary to limit testing to labs certified by the Department of Health and Human Services. It questions whether alcohol testing is sufficiently simple to obviate the need for special certification. There are also issues concerning preserving the chain of custody of samples and whether medical review officers should be required.

As an example of the seriousness and widespread abuse of alcohol, during a 7-year period DOT's inspector general found

that 10,300 individuals who had previously had their driving licenses revoked for driving while intoxicated became certified pilots (9). DOT found that in 1986, 30 percent of 300 randomly selected truck drivers tested positive for drugs or alcohol (9).

When Are Employees Tested?

Testing of employees who perform sensitive safety functions is to be carried out under the following circumstances (13,p.21):

- Before employment for, or assignment to, a safety-sensitive position;
- If they contributed to, or cannot be completely discounted as a contributing factor in, an accident;
- On an unannounced and random basis (the number of tests conducted annually must equal 50 percent of all employees who perform sensitive-safety functions);
- Before returning to duty after having refused a drug test or after not passing a drug test; or
- For a reasonable cause.

Sanctions for Employees Testing Positive for Drugs

UMTA requires that employees who test positive for drugs be immediately removed from safety-sensitive positions. Employees must comply with a "return to work" drug test before reinstatement to a safety-sensitive position. In a March 1990 seminar sponsored by Batelle Laboratories on drug testing in the transit industry, workshop leaders suggested that an employee who is suspected of drug abuse but refuses to be tested should be penalized more severely than an employee who agrees to be tested and tests positive. Refusal to comply might well be construed as insubordination to be punished by immediate suspension or termination. Before returning to work in a safety-sensitive position, an employee must undergo a drug test (13,p.20).

LEGAL CHALLENGES TO DRUG-TESTING PROGRAMS

The legal issues surrounding drug testing involve questions of employee privacy rights under the Fourth and Fourteenth amendments to the Constitution, public safety, employer interest in ensuring the highest employee performance standards, and employer protection from legal liability in accident cases. The Fourth Amendment protects against unreasonable search and seizure of one's person or property. The Fourteenth Amendment addresses issues concerning equal treatment and employees' privacy rights. Two approaches used when addressing privacy rights are the traditional or warrantless administrative search and the "balancing" standard. The balancing standard emphasizes an interpretation that is relative to a case-by-case circumstance or situation (14).

Warrantless Searches

Drug testing of employees does not require warrants because tests are not used for criminal prosecution. Warrantless ad-

ministrative searches are justified by strong state interest in highly regulated industries. Because the information received from drug testing is directly related to the safety of the public, the argument is that the privacy expectation of the individual is lowered.

Some limitations on constitutional issues between private and public agencies are unclear. One recent court case ruled that a drug-testing program in the workplace involved state action because the private employer was a subcontractor of a state agency (*Craft versus Pace of South Holland*, 1988) (15). Nonconstitutional limitations include state drug testing laws, state constitutions, torts, employment laws, and certain federal statutes.

Employee Privacy Versus Public Safety

A military court's ruling in *Committee for G.I. Rights versus Callaway* (16) in 1975 set a precedent for subsequent court decisions. In this case, testing for administrative purposes allowed the military to test without reasonable cause. When individuals are singled out, reasonable cause is required.

Strong state interest, lowered expectations of privacy by employees, a low level of intrusiveness, and procedural protection for employees are factors that influence the courts to rule in favor of drug testing. In *Division 241, Amalgamated Transit Union (AFL-CIO) versus Suscy* (17), for example, bus drivers were required to submit to urine tests (not random) on the basis of a lowered expectation of privacy, a strong state interest, and procedural protection for those being tested. In *Shoemaker versus Handel* (1986) (17), the first random drug-testing case, the U.S. District Court in New Jersey ruled that the state's interest in a horse-racing track reduced the expectation of privacy by jockeys. The court ruled that the state's interest in a highly regulated industry took precedence over the privacy rights of the individual jockey.

In contrast, in *Amalgamated Transit Union, Local 1277, AFL-CIO versus Sunline Transit Agency* (17) the court concluded in 1987 that "the public's interest in safety" was important, but in this case random testing did not conform to reasonable cause requirements. The Ninth Circuit Court of Appeals in San Francisco in *American Federation of Government Employees versus Carlucci* (17) concluded that a random urinalysis was inconclusive evidence of impairment or abuse. The U.S. Circuit Court of Appeals overturned the lower court's ruling and unanimously upheld random drug testing (18). The court ruled that the issue of employee privacy is "outweighed by the Department's (DOT) compelling interests in preventing drug use among employees who are involved in public safety or national security." The Supreme Court later refused to hear an appeal of the case (19).

Related Legal Problems

Claims of employment discrimination from wrongful discharge, aside from those arising under the United States Constitution, include (a) state constitutional protection, (b) intrusiveness of urinalysis procedures, and (c) the confusing situations created by suits brought by plaintiffs under the Federal Rehabilitative Act of 1973 and Title VII of the Civil Rights Act of 1964.

A job applicant who is refused employment or who is disciplined on the basis of tests that reveal the presence of drugs could claim unfair discrimination under the Federal Rehabilitative Act. The act does not protect drug abusers who cannot perform their jobs as a result of drug abuse or when such impairment causes a threat to company property and personnel. A person who refuses rehabilitation is not eligible to collect either unemployment benefits or workman's compensation. The act applies to both public and private agencies that accept federal funding.

The Civil Rights Act of 1964 prohibits discrimination based on race, sex, religion, or national origin. If an employee uses the act in a defense, the employer must counter allegations by stating that employee discipline was predicated on poor job performance. In *New York City Transit versus Beazer*, the Supreme Court upheld a policy that prohibited hiring narcotics users. This ruling disproportionately affected the black and Hispanic communities.

Many legal problems may be expected to emerge as a result of drug-testing regulations. The suspended drug-testing regulations require that transit agencies receiving federal funds certify that personnel performing safety-sensitive functions, including personnel who are not employees of the transit agency but are employees of support service providers, meet the drug-testing requirements. For example, if an independent garage performs routine maintenance on transit vehicles, employees performing routine maintenance must meet the same drug-testing requirements as the transit agency's own employees performing safety-sensitive functions. In addition, even though a transit agency does not purchase routine maintenance services through a competitively bid, written contract, and they are bought through a small purchase agreement with a local garage (such as using an oil company credit card to purchase services), the drug-testing requirements apply, and the transit agency has an informal contract with the garage performing the service.

Maze et al. have recently conducted a survey on the effects of drug testing on contracting for maintenance services in public transportation (T. H. Maze, K. M. Waggoner, M. E. Maggio, and J. Dobie, *A Manual on Contracting for Maintenance Services*, research in progress). The results indicate that drug testing may well present administrative burdens, particularly for small transit operators. Moreover, careful management and monitoring of maintenance contractors is likely to become the norm should UMTA be granted authority to initiate an aggressive drug-testing program, including random testing, in public transportation agencies receiving federal funds. In the following section of this paper, the results of the survey are presented.

FINDINGS OF SURVEY

The primary objective of surveying agencies that contract for maintenance was to collect data on the state of the practice of maintenance contracting in the transit industry (T. H. Maze, K. M. Waggoner, M. E. Maggio, and J. Dobie, *A Manual on Contracting for Maintenance Services*, research in progress). Surveying expected drug-testing practices was a secondary reason. The results concerning expected drug-testing practices, however, are the focus of this discussion. The survey

was conducted by telephone with some in-person follow-up. Respondents were predominantly small urban transit systems and rural agencies.

Survey Methodology

Although a preponderance of evidence suggests that competitively contracted maintenance services frequently reduce operating costs, few transit agencies contract for these services (20). The rationale for retaining in-house maintenance capabilities included factors such as better control over quality of maintenance, better control over the equipment, ability to specialize in transit equipment maintenance, integration with other service functions, and retention of equipment maintenance expertise in-house.

What appears most troublesome is that small agencies tend to have their vehicle maintenance conducted through private service providers using small purchase agreements rather than through competitively awarded contracts. Common arguments provided by small agencies (usually rural systems) against competitively bidding maintenance services are that (a) the bidding mechanism is too complex and thus an administrative burden, (b) the agency is currently able to "shop around" to find the best price, (c) service providers are unsophisticated and thus unable to bid on services, (d) contracting would lock them into a service provider that would be unresponsive to their needs, and (e) contracting would result in their losing absolute control over equipment.

On the other hand, several small agencies in rural areas do competitively contract for maintenance services. For the most part, they report receiving excellent service at lower costs.

To identify agencies with positive or negative contracting experiences, staff members with transit oversight responsi-

bilities at state departments of transportation were contacted to identify agencies that currently contract for maintenance services. Agencies from 45 states were contacted (the states that were not contacted were Alaska, Hawaii, Delaware, Rhode Island, and New Mexico). Twenty-five state contacts did not think that any systems contracted for maintenance in their state. Four contacts did not believe that there were any agencies that competitively contracted for maintenance in their states but were not certain. Fourteen contacts were able to identify agencies that competitively bid contracts for maintenance services. Through DOT contacts, 23 agencies that competitively contract for maintenance services were identified.

This process has missed some agencies. The purpose of the survey, however, was not to identify the entire population of small transit systems that contract for maintenance services; it was to identify the state of the practice. A sample of systems was identified to begin determining trends in the industry.

Survey Results

Table 1 gives a summary of the findings. The systems surveyed represent a cross section of the country. Fourteen agencies had discussed drug testing with their contractors, and the contractors agreed to cooperate. Two agencies commented that their contractors had already begun planning for drug testing: the contractor for one of the agencies had its employees adopt a drug policy statement, and the other claimed that the contractor had already developed a plan for the administration of drug testing. Two agencies contracted with firms that had their own drug-testing policy in place and are currently conducting drug testing.

Two agencies had not discussed drug testing with their maintenance contractors because they did not want to alarm

TABLE 1 ANTICIPATED CONTRACTOR COMPLIANCE WITH DRUG-TESTING REQUIREMENTS

Agency State	Agency Type	No of Vehicles *	Anticipate Drug Testing Experience **	Experience	Cost of Services ***
Alabama	Section 18	12	No Problem	Good Service	Experienced Savings
Florida	Section 9	34	Program In Place	Good Service	Experienced Savings
Iowa	Section 18	35	No Problem	Good Service	Experienced Savings
Kansas	Section 18	26	Some Problems	Good Service	Experienced Savings
Kentucky	Section 18	12	Have Not Discussed Yet	Just Started	No Basis For Comparison
Maine	Section 18	18	Contractor Uninterested in Testing	Good Service	No Basis For Comparison
Maine	Section 18	23	Have Not Discussed Yet	Mixed Experience	No Basis For Comparison
Michigan	Section 9	20	No Problem	Good Service	Experienced Savings
Michigan	Section 18	6	No Problem	No Response	No Response
Minnesota	Section 18	47	Phase-out Contract For Other Reasons	Starting Inhouse	Anticipated Savings Inhouse
Ohio	Section 9	16	Testing Policy In Place	Good Service	Experienced Savings
Ohio	Section 9	10	No Problem	Good Service	No Basis For Comparison
Ohio	Section 9	27	No Problem	Good Service	Experienced Savings
Oklahoma	Section 18	26	Some Contractors May Not Cooperate	Good Service	Experienced Savings
Oregon	Section 18	2	No Problem	Acceptable Service	No Savings or Increase
Oregon	Section 18	2	No Problem	Good Service	Experienced Savings
Oregon	Section 18	12	Program In Place	Good Service	Experienced Savings
Oregon	Section 18	10	No Problem	Good Service	Experienced Savings
Pennsylvania	Section 18	5	Contractor Is Unlikely To Cooperate	Service Unsatisfactory	No Basis For Comparison
Vermont	Section 18	20	Developed Plan For Testing	Good Service	Experienced Savings
Washington	Section 18	30	No Problem	Good Service	Experienced Savings
Washington	Section 18	17	No Problem	Good Service	No Basis For Comparison
West Virginia	Section 18	15	No Problem	Good Service	Experienced Savings

* The number of vehicles operated by Section 18 agencies were derived from: Community Transportation Association of America, "A Directory of UMTA-Funded Rural and Specialized Transit Systems," Prepared for the Urban Mass Transportation Administration, Washington, D.C., 1990, DOT-T-90-05.

** Since none of the agencies had in fact established a complete drug testing program, managers were forced to speculate on the problems they would encounter when they asked their service contractor to comply with a drug testing program.

*** None of the agency managers had conducted an economic analysis to estimate whether there were savings that resulted from contracting for services. Managers that estimated a savings (or a cost increase) did so based on judgement.

the contractors at a time when the status of drug testing was unclear. Two agencies had multiple contracts, in which different contractors were used at different locations. They said that it was likely that some contractors would cooperate, whereas others would not (primarily because of the low volume of transit business).

Two agencies perceived that their contractors would not be willing to comply with drug-testing requirements. One representative said that if a new contractor could be found, it would cooperate through rebidding. Another agency was unsure whether it could find any maintenance service providers who would submit their employees to drug testing. One agency was phasing out its current contract because it was developing in-house maintenance capabilities.

Of those agencies that had planned to implement drug-testing requirements for contractors, some planned to have the contractor pay for the cost of testing as a cost of doing business. Other agencies planned to reimburse the contractor for the cost of the test and the employee's time while traveling to and from the sample collection site.

The managers of the agencies were also asked if they had experienced good service from their contractors. Most agreed that they had a good relationship with their contractors and that they were receiving good service. In follow-up case studies, it was found that strong contract administration by the transit agency, regular communications, and flexibility were attributes of successful contracting (T. H. Maze, K. M. Waggoner, M. E. Maggio, and J. Dobie, *A Manual on Contracting for Maintenance Services*, research in progress).

Some systems surveyed have always contracted. As a result, they did not have a point of reference for maintenance costs without contracting. Most who had a point of reference believed that competitively bid contracts have resulted in cost savings.

The results of the survey are clear. Competitively bid, contracted maintenance services generally result in transit system savings, and agencies are generally satisfied with the quality of service. Some agency managers believe that the drug-testing requirement would result in the need to rebid services. In one case it was stated that no local contractors would want the work under the drug-testing requirements. Nonetheless, a majority of those contacted agreed that their contractors would comply with drug-testing rules.

Although compliance with drug-testing requirements does not appear to be an impossible barrier for most small transit agencies, it could present a significant burden for very small agencies (e.g., those with fewer than eight vehicles). Because of a very small agency's lack of maintenance work volume, a contractor may not find the work attractive enough to compensate for the added administrative burden.

As other transportation industries (e.g., trucking) come into compliance and industry in general adopts the requirements, testing is likely to become more commonplace and accepted by mainstream employees. For example, when the DOT requirements are fully applied across all transportation modes (except transit) by the end of 1990, roughly 4 million transportation workers in all locations in the United States will be covered by drug-testing programs (21). Therefore, in time, drug testing is likely to lose its stigma, and contractors attracted by the work will lower their resistance to drug-testing requirements.

CONCLUSIONS

Drug testing has been shown to significantly deter drug use by employees. Challenges to the constitutionality of drug testing, including random testing, have been defeated in the courts. The concern is that an alarming rate of drug abuse in the transportation sector may come to light as testing is implemented on a nationwide basis (22). Though there may well be some disruptions in work forces in certain modes of transportation should the rate of workers testing positive be high, the time has arrived for the transportation industry to move forward on this critical issue.

Testing is unquestionably an administrative burden for small agencies. This is a troublesome issue. State or association consortiums can assist small agencies in dealing with the burden. For example, transit agencies near each other could form consortiums and use the consortium's size to reduce the individual burden of contracting for maintenance services. State-wide transit associations could work with automotive service associations to identify potential contractors and develop and disseminate model contracting language and procedures.

The imposition of drug-testing requirements is likely to cause agencies not currently procuring service through competitive contracting to establish closer relationships with their maintenance providers. The strengthening of relationships is likely to result in more competitively awarded, written contracts. Though at first examination this appears to be an overwhelming burden to the "shade tree" mechanic, experience has shown that it is not an insurmountable impediment to a local business. Some small rural transit agencies competitively contract for maintenance using written agreements as short as one page, and local garages perform the work.

Procedures intended to minimize the administrative burden are becoming available for small agencies and their third-party contractors. The procedures are designed to provide for the development of consortiums of collection sites to minimize costs and enforcement problems and alleviate some of the record keeping and chain of custody problems that might otherwise be impossible to manage. This is expected to assist transit agencies, contractors, and the employees who will be subject to drug testing.

A positive factor associated with the drug-testing issue is reflected in Table 1. With the implementation of drug-testing requirements, more competitive contracting for vehicle maintenance is likely. Agencies that competitively award vehicle maintenance contracts are likely to accrue savings. There will necessarily be resistance to any new policy that adds to the administrative work load for agency directors. Whereas the sample size for this study was not large, agency directors interviewed for this study indicated that contracting for maintenance of their vehicles, and subsequent compliance with the federal rules on drug testing, were not insurmountable problems.

These findings are not meant to be a blanket endorsement for contracting for maintenance services under all circumstances. Very small agencies in remote areas may have a limited pool of private-sector maintenance service providers willing to compete for the transit agency's business. Although it is expected that such instances will be extreme (the automotive service industry has a low cost for entry and is highly competitive), the application of drug testing in such cases is likely to require that systems search for creative local solutions.

Finally, agencies considering contracting for maintenance services must be cautioned. Successful contracting requires continual monitoring and careful management of contracts. For maintenance contracting, this implies developing or having the contractor develop a rigorous preventive maintenance routine. Agency staff should regularly monitor invoices and inspect work to ensure that it is being completed to the agency's satisfaction. However, these same recommendations represent prudent practice for professional transit managers, and they should be followed by agencies that do not have written contracts and purchase maintenance services through small purchase agreements.

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