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Employee Drug Testing: Study Shows Improved Productivity and Attendance and Decreased Workers' Compensation and Turnover

Neil A. Fortner, MS, FTS-ABFT, TC-NRCC, David M. Martin, PhD, S. Evren Esen and Laura Shelton

Abstract

Human resource professionals were asked about their organizations' drug testing programs and reported the following perceptions after the implementation of a drug testing program: One-fifth (19%) of companies experienced an increase in employee productivity after the implementation of a drug testing program, employers with high absenteeism rates (more than 15%) reported a drop from 9% to 4% after implementing a drug testing program, an improvement of 56%; companies with high workers' compensation incidence rates (more than 6%) reported a drop from 14% to 6% after implementing drug testing programs, an improvement of 57%; and 16% of companies reported a net employee turnover decrease. Additional research needs to be conducted to further confirm these findings, but this initial pilot study suggests that drug testing has a positive impact in companies creating a more productive, safe, and stable workforce.

Keywords

Drug testing, absenteeism, worker's compensation incidence rates, productivity, employee turnover, human resources, pre-employment, for cause, random, mandated

Introduction

Drug testing of employees is a relatively new tool used in the last 20 years for evaluating candidates for employment and to promote safety in the workplace. Drug testing as we know it today, did not exist prior to 1980. However, in 1981 the crash of a Navy jet on the USS Nimitz aircraft carrier resulted in the death and injury of scores of enlisted men. Unfortunately, drug testing revealed the presence of drugs in not only that aircraft carrier's personnel but widespread in the military (1, 2). This led to a series of investigations and President Ronald Regan issuing Executive Order 12564, mandating a drug free federal workplace. Seven years after the crash and extensive study, the

Mandatory Guidelines for Federal Workplace Drug Testing was published in 1988 (3). This provided the United States with the framework for establishing drug testing, not only for federal employees, but contractors and non-mandated industries as well. It is now widely acknowledged that the United States has the most extensive, medically confidential, and well-designed drug testing program in the world and has set the standard for drug testing globally.

As the mandated drug testing program for federal employees developed in the early 1990s and the legal and technical challenges for drug testing were all successfully met, drug testing was embraced by non-mandated industries such as retail and construction. The non-mandated testing spread using, as its basis, the Federal mandated program elements that were proven in the field for years.

However, since the international financial crisis there have been questions about the return on investment for drug testing leading some companies not to implement a drug testing program. These questions persist at the same time close to a trillion dollars a year are lost to drug abuse in our nation alone and the benefits of drug testing to help stem this loss are consistently reported (4, 5, 6, 7, 8).

Unfortunately, there has not been any research in this area for over a decade so the Drug and Alcohol Testing Industry Association (DATIA) funded a project to obtain the current opinions of human resource professionals about drug testing. DATIA felt this study was important to understand why some companies still do not have drug testing programs when the data generated by the Quest Return On Investment calculations suggest that a drug testing program provides a significant return on investment (9, 10). Also, with the U.S. drug abuse epidemic spreading away from conventional street drugs such as heroin, marijuana and cocaine to pharmaceuticals, designer drugs, synthetic drugs such as bath salts and spice the employee drug abuse problem will only grow in the future. This shift has been documented and followed since early 2000 by the Office of National Drug Control Policy and Justice Department, and an action plan has been developed to address this growing problem (11). Unfortunately there has been little research on the cost benefits of establishing a drug testing program over the past decade (12, 13, 14, 15). In order to address this question, DATIA commissioned the Society for Human Resource Management (SHRM) to help with the design of the study and the tabulation of the findings outlined in this report. The study was conducted from March 1st to March 14th, 2011.

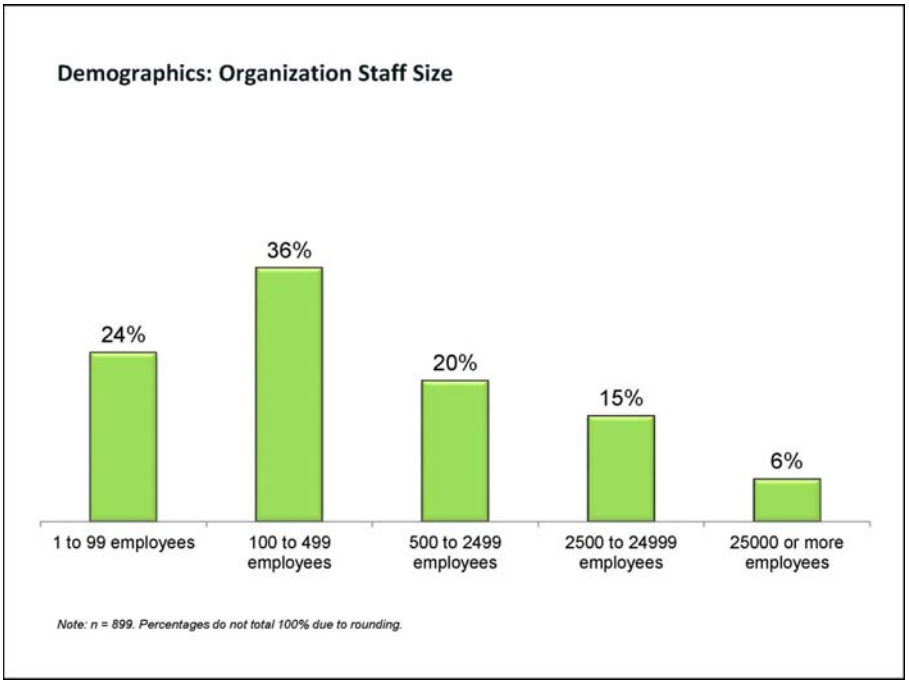
Survey Methods

A series of multiple choice questions were developed by DATIA and further refined by SHRM. These questions were then put into a web based survey tool and sent to a sample of 6,000 randomly selected human resource professionals from SHRM's membership of approximately 250,000 members. A response rate of 20% was achieved, with 1,058 human resource professionals participating in the poll; the margin of error for the poll is +/-3%.

Population Demographics

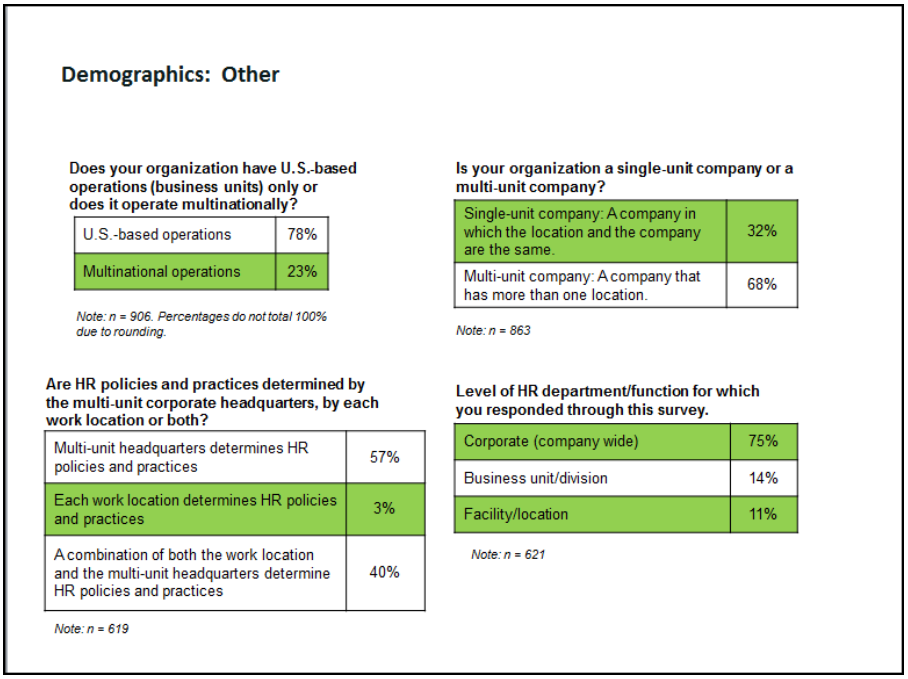
The majority (80%) of the respondents worked in organizations of 2,500 employees or less (see Figure 1): More than one-third (36%) had 100-499 employees, nearly one-quarter (24%) had 1-99 employees, and one-fifth (20%) had 500-2,499 employees. One-half (50%) of the responders' organizations, were publicly owned for-profit companies, 19% were from privately owned for-profit companies and 19% were from nonprofit organizations. The largest proportions of organizations were from the manufacturing (18%) and health care (14%) industries.

Figure 1 Demographics of the Study



Seventy-eight percent of the responding human resource professionals were from U.S. based companies, of which 68% had multiple locations and 23% had international operations. It was interesting to note that 75% of the respondents provided information not simply for their division but companywide (see Figure 2).

Figure 2 Detailed Company Demographics



Demographics: Other

Does your organization have U.S.-based operations (business units) only or does it operate multinationally?

U.S.-based operations	78%
Multinational operations	23%

Note: n = 906. Percentages do not total 100% due to rounding.

Is your organization a single-unit company or a multi-unit company?

Single-unit company: A company in which the location and the company are the same.	32%
Multi-unit company: A company that has more than one location.	68%

Note: n = 863

Are HR policies and practices determined by the multi-unit corporate headquarters, by each work location or both?

Multi-unit headquarters determines HR policies and practices	57%
Each work location determines HR policies and practices	3%
A combination of both the work location and the multi-unit headquarters determine HR policies and practices	40%

Note: n = 619

Level of HR department/function for which you responded through this survey.

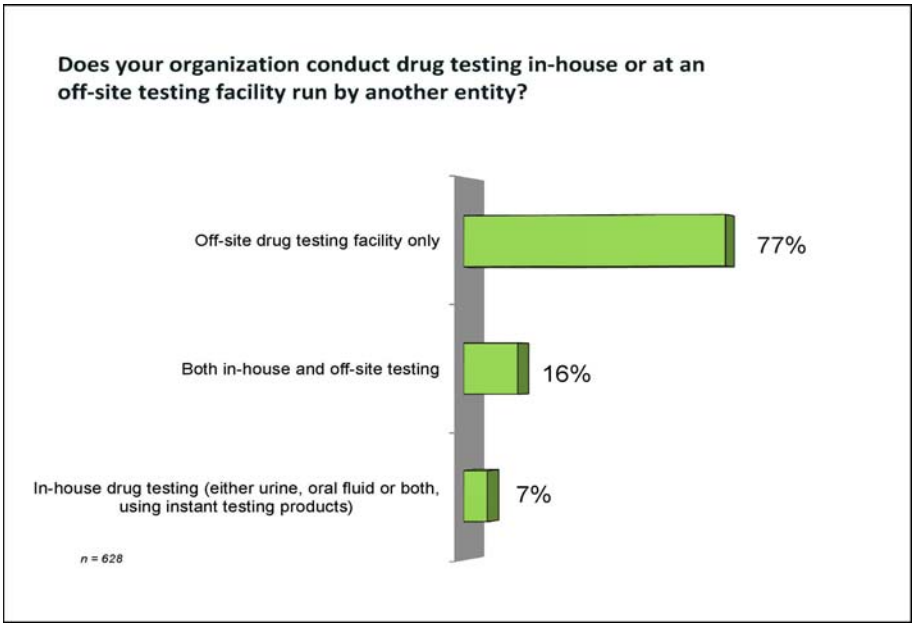
Corporate (company wide)	75%
Business unit/division	14%
Facility/location	11%

Note: n = 621

The majority of responding human resource professionals to the survey were either decision makers (41%) or those that make recommendations (29%) concerning the drug and alcohol testing programs in their company. We decided to include those individuals that were not directly involved in the policy formation, as they may have perceived effects prior to and after the implementation of a drug and alcohol policy. We looked at the data both ways and did not find a significant difference. Our group determined that including all respondents in the survey was the most appropriate measure of the human resource impact of drug testing in a company. Although some individuals may not have had an impact on policy, they might have seen its effects directly in the workplace.

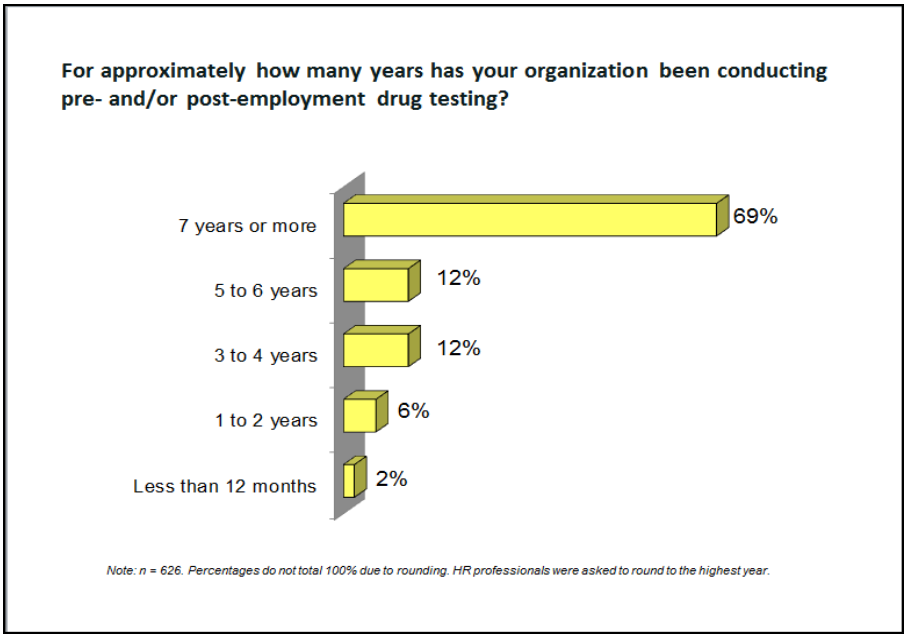
The majority of organizations (77%) continue to use off-site drug testing facilities for both collections and testing, while a smaller number of companies (16%) continue to use a combination of both in-house and off-site testing. Despite the reported increase in the use of in-house drug testing (either urine, oral fluid or both, using instant testing products), this number represents the smallest group at 7% (see Figure 3). However, this data does provide an excellent baseline for future surveys and will allow us to track trends and changes in how companies approach drug testing as new products and regulations evolve.

Figure 3 Responding Human Resource Professional



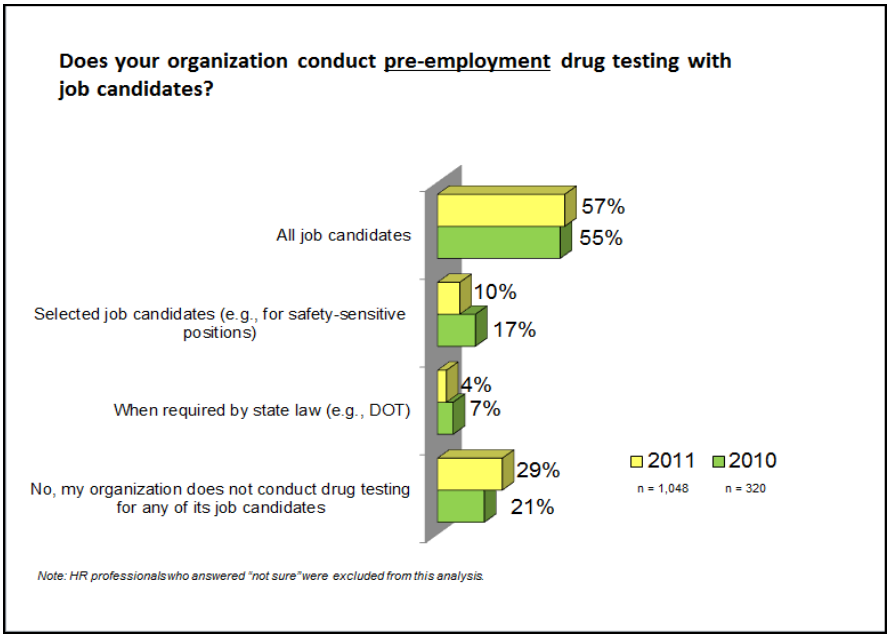
The majority of human resource professionals who responded to the study (69%) had programs in place for seven (7) years or more (see Figure 4). This suggests that those companies who started drug testing programs stayed with the programs for one reason or another. Outside this study, when asked why companies have drug testing programs, some say it ensures a better quality of worker, less absenteeism, and fewer accidents. Although difficult to quantify, this study confirms the perceived benefits of maintaining a drug testing program among human resource professionals responding to this study.

Figure 4 The Length of Time Companies Drug Tested



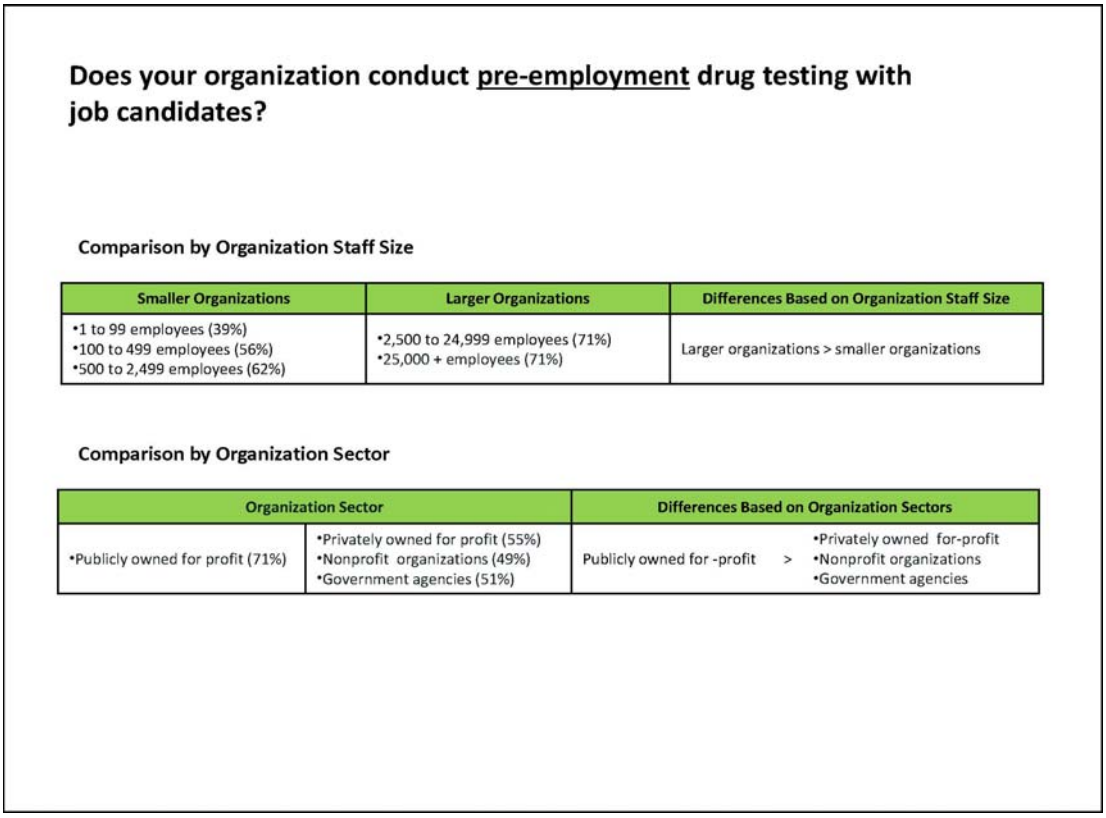
When asked if pre-employment testing was done prior to hiring an individual, a majority (57%) reported they test for job candidates, a slight increase in 2011 vs. 2010. The remaining categories of pre-employment testing, (selected candidates only, and positions required by state law) indicated a decrease in testing in 2011 vs. 2010 perhaps due to the slowdown in the economy. Thus, in 2011, 71% of respondents reported some category of pre-employment drug testing. However, the percentage of respondents who reported that their organizations do not conduct any pre-employment testing rose from 21% in 2010 to 29% in 2011. The companies were not asked the reasons as to why they did not drug test, but several reported that they did not believe in drug testing (see Figure 5).

Figure 5 Pre-Employment Drug Screening



Although it was clear that human resource professionals from large organizations, (those with greater than 2,500 employees), reported that 71% had pre-employment drug testing programs, only 51% of human resource professionals from the government sector, reported using pre-employment drug testing for all job candidates (see Figure 6). As all Federal government and most state and local governments have drug testing requirements, this report seems low and may simply be a reflection of not knowing the policy, or due to some confusion as to whether this question should have been phrased to reflect safety sensitive positions. Again, we included those human resource professionals not involved with the drug testing policy or program implementation, and this may simply be an artifact of that inclusion.

Figure 6 Pre-employment Testing by Organizational Sector



Does your organization conduct pre-employment drug testing with job candidates?

Comparison by Organization Staff Size

Smaller Organizations	Larger Organizations	Differences Based on Organization Staff Size
•1 to 99 employees (39%) •100 to 499 employees (56%) •500 to 2,499 employees (62%)	•2,500 to 24,999 employees (71%) •25,000 + employees (71%)	Larger organizations > smaller organizations

Comparison by Organization Sector

Organization Sector		Differences Based on Organization Sectors		
•Publicly owned for profit (71%)	•Privately owned for profit (55%) •Nonprofit organizations (49%) •Government agencies (51%)	Publicly owned for -profit	>	•Privately owned for-profit •Nonprofit organizations •Government agencies

Human resource professionals responding to the types of post-employment testing conducted by their organizations reported that post accident and random testing were the most unchanged from 2010 to 2011, along with follow up testing. Post accident testing is required under many government and private sector programs, and random testing has been shown to be the greatest deterrent of drug abuse on the job (11, 12, 13, 14, 15). This gives employees a reason to "just say no" as employees do not know when they will be asked to provide a specimen for drug testing. It is interesting to note that reasonable suspicion testing dropped precipitously from 80% in 2010 to 35% in 2011. This could be a result of employees knowing there is a reasonable suspicion policy in effect or that pre-employment drug testing has created a more responsible work force. Follow up drug testing for those who have been identified as drug abusers also dropped, which may be a consequence of the post accident and random drug testing programs. Site and baseline testing are rare and not usually performed unless there is a credible reason to believe a significant drug problem, such as trafficking, is occurring in a specific workplace (see Figure 7).

Figure 7 Types of Drug Testing

Which of the following post-employment drug tests does your organization conduct?

Drug Test Used	2011 *(n = 313)*	2010 *(n = 222)*
Post-accident testing (administered to all employees who are or may have been involved in a workplace accident)	51%	69%
Random testing (conducted on an unannounced basis using a neutral selection process and has the highest deterrence and detection impacts; a certain portion of the employee population is randomly selected periodically throughout the year)	47%	46%
Reasonable suspicion testing (occurs when an employer has reason to believe that an employee is under the influence of drugs and/or alcohol)	35%	80%
Follow-up testing (conducted during and after an employee has been referred to an employee assistance or other rehabilitation program)	20%	30%
For-cause testing is based on indicia that an employee may have a substance-abuse problem (e.g. excessive absenteeism, performance problems, dramatic mood swings, etc.).	19%	*
Site testing (based on suspicion of a significant drug-abuse problem—e.g., based on employee complaints—at a specific work site and involves testing of all employees at that site on a one-time basis)	8%	13%
Baseline testing (conducted to establish the level of drug use at implementation of a program; this method essentially "cleans house" to establish a drug-free workplace)	6%	22%

Note: Percentages do not total 100% due to multiple responses.
"" indicates question was not asked.*

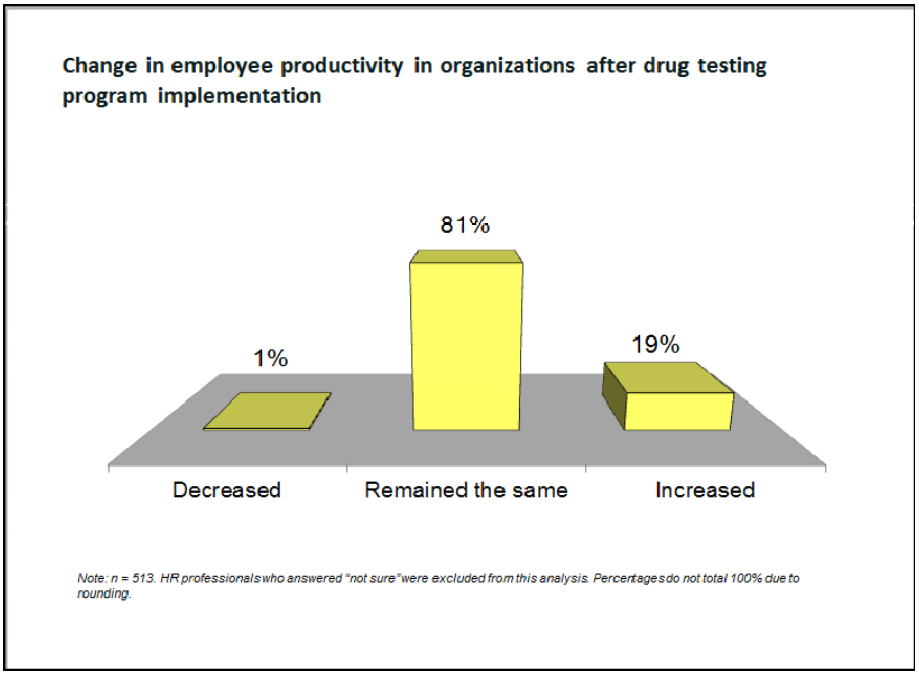
Perceived Impact of Drug Testing in the Workplace

The human resource professionals surveyed perceived a positive impact on four areas in the workplace: productivity, attendance, workers' compensation incidence rates, and employee turnover.

Productivity is a difficult metric to gauge but is related to attendance, accidents, and employee turnover. Higher levels of absenteeism, accidents, or turnover can be directly related to lowered productivity in the workplace overall. This is because company energy is directed not on producing products or services but rather on compensating for employee attendance accidents and turnover.

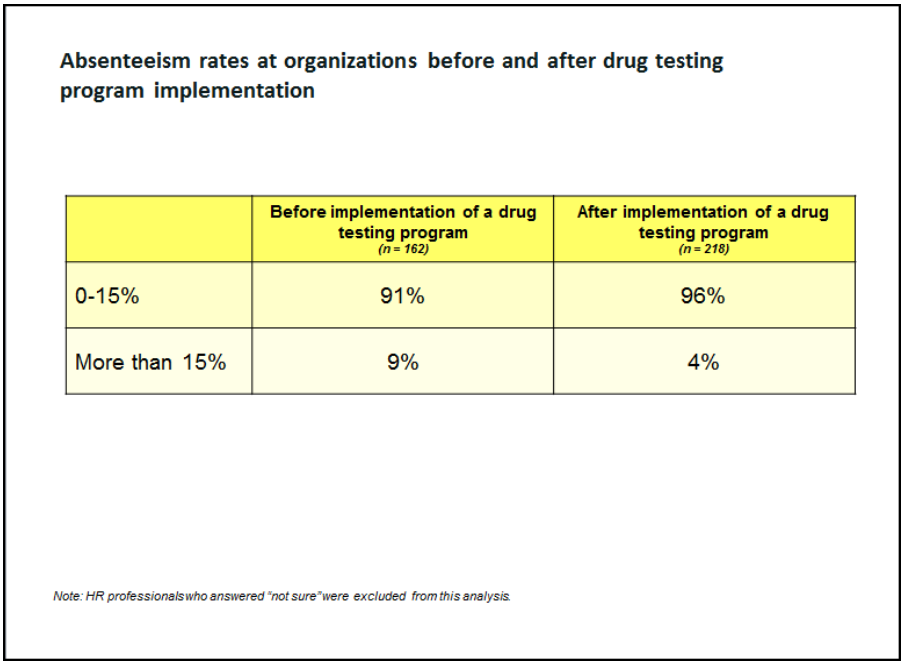
In our study, nearly one-fifth (19%) of the human resource professionals reported a perceived increase in productivity after the implementation of drug testing program (see Figure 8). This again could be related to a more stable workforce and employee energy directed to specific job performance. Put into financial terms this could result in increased profits with the same workforce, an important consideration in today economic slowdown.

Figure 8 Employee Productivity After Implementing Drug Testing



Absenteeism is a major burden on employers, especially small businesses, where there are fewer resources available to fill in for the absent employee. This often results in decreased output, performance and profits for the company who has chronic high absenteeism. One of the early findings of implementation of drug testing programs was the decrease in absenteeism (14). There are many explanations as to why this benefit may be caused by a drug testing program but the classic explanation is a better quality of employee who does not "call in sick" on Mondays. Employees that are using illicit drugs or abusing prescription drugs are less productive, tend to miss work more often, may steal from the company, and are prone to more accidents. Companies reporting low absenteeism rates (0-15%) increased by 5% after implementing drug testing programs. This was one of the questions in the survey that had one of the lowest responses (n=162 and n=218 respectively) and suggests that this is one measurement that companies have a hard time correlating to drug testing, when their absentee numbers are relatively low. However, when the absenteeism of the company was greater than 15%, the implementation of a drug testing program showed a reduction in absenteeism from 9% to 4% (see Figure 9). This strongly suggests that when absenteeism is greater than 15%, a significant portion of this absenteeism is related to drug use/abuse and that the implementation of a drug testing program significantly impacts absenteeism.

Figure 9 Employee Absenteeism After Implementing Drug Testing



Absenteeism rates at organizations before and after drug testing program implementation

	Before implementation of a drug testing program *(n = 162)*	After implementation of a drug testing program *(n = 218)*
0-15%	91%	96%
More than 15%	9%	4%

Note: HR professionals who answered "not sure" were excluded from this analysis.

Several state and private insurance companies provide decreased workers' compensation premium rates for companies who have a drug testing program, as they know it will decrease accidents and their costs associated with claims. This is especially true in companies that have high rates of workers' compensation claims, greater than 6%. The study participants reported a decrease in workers' compensation incidence rates from 14% to 6% (among organizations with workers' compensation incidence rates greater than 6%) after implementation of a drug testing program or an improvement of 57% (see Figure 10). This can result in significant saving for company, not only in insurance rates, but the consequences of accidents on the job from human resource, fiscal, and legal perspectives.

Figure 10 Workers' Compensation rates after Implementation of Drug Testing

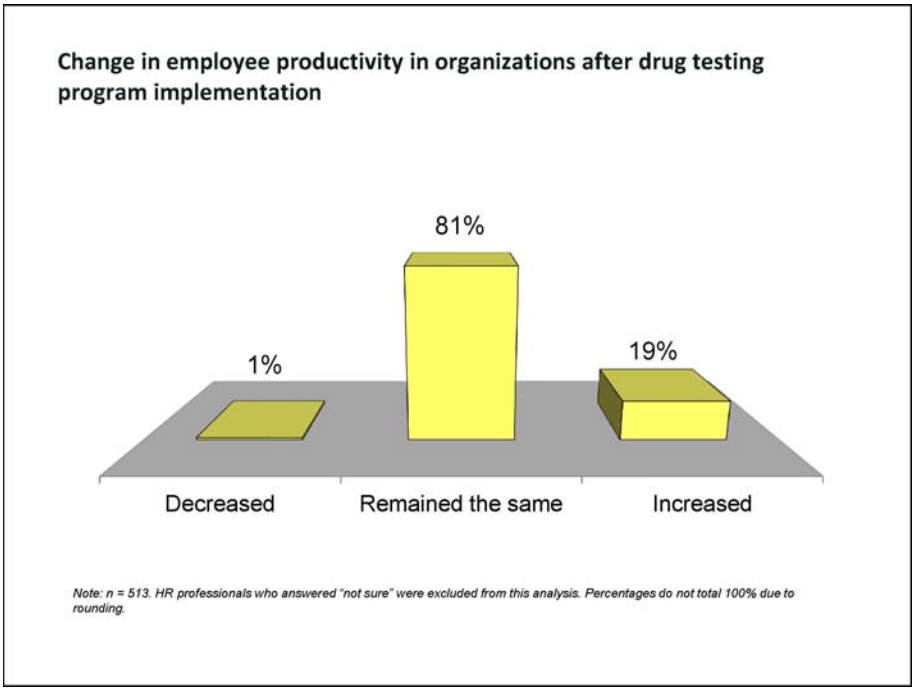
Workers' compensation incidence rates at organizations before and after drug testing program implementation

	Before implementation of a drug testing program *(n = 255)*	After implementation of a drug testing program *(n = 312)*
0-6%	86%	94%
More than 6%	14%	6%

Note: HR professionals who answered 'not sure" were excluded from this analysis.

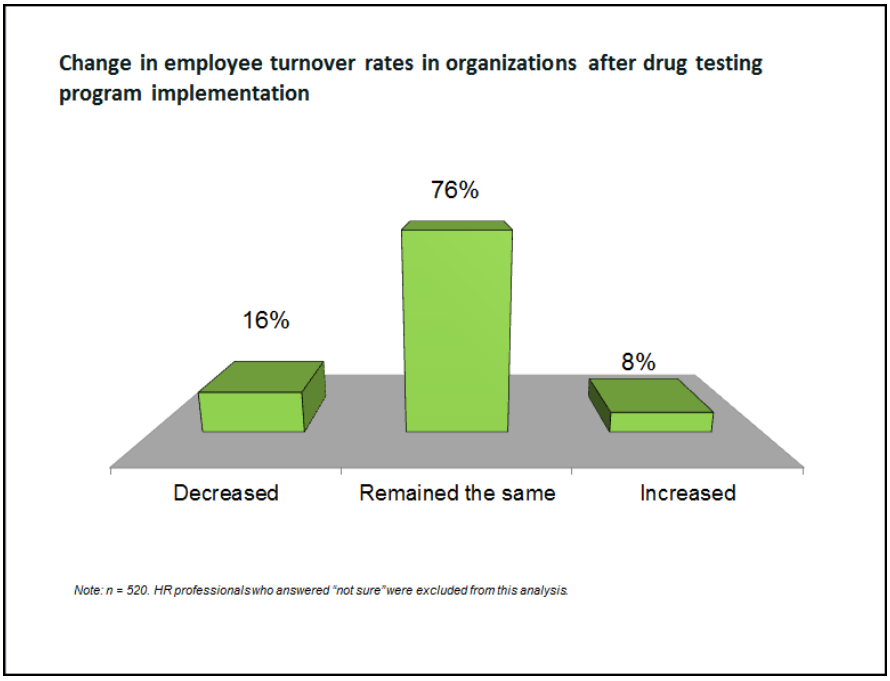
Productivity may be one of the most desirable aspects to measure in a workplace, as this indicator often translates directly to the bottom line of the company. While productivity measurements will vary significantly from one industry to another, it was interesting to note that 19% of the organizations reported an increase in productivity following the implementation of a drug testing program (see Figure 11).

Figure 11 Change in Employee Productivity after Implementation of Drug Testing



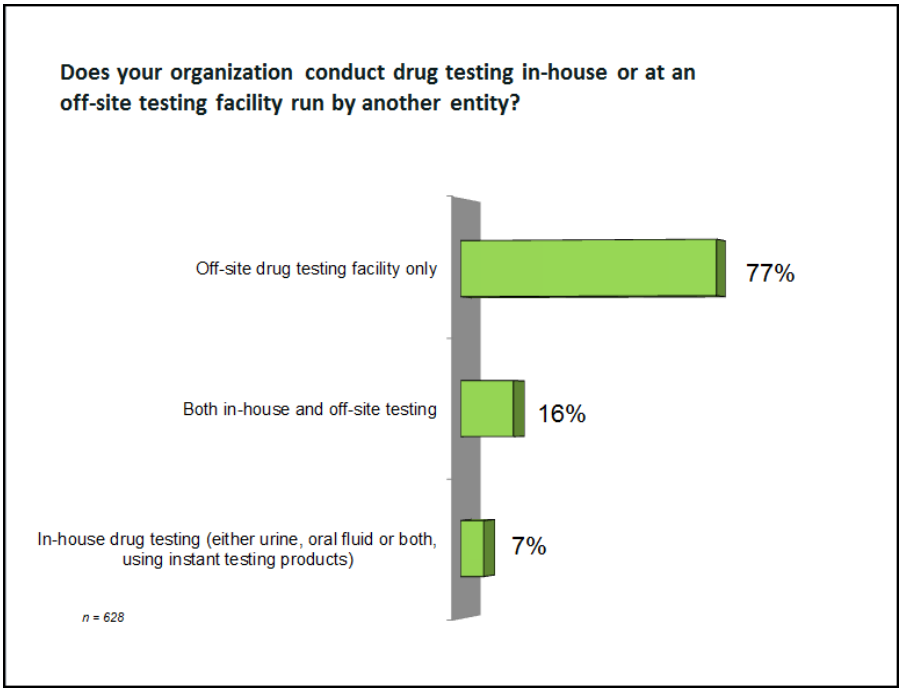
It costs an average of over $5000 to replace a worker, more as the qualifications and skill sets increase. Turnover of the workforce in any organization is a timely and costly component that can be controlled by hiring a better quality of worker. One of these improved qualities is a worker that is drug free and does not have drug abuse behaviors that often carry over to the workplace such as high turnover. Human resource professionals reported a 16% decrease in employee turnover once a drug testing program was implemented, 8% saw an increase in turnover which could have been the result of drug abusing employees seeking other employment, and 76% reported no change. This suggests that drug testing helps to create a more stable work force and lowers recruitment training and other associated costs with on boarding new employees (see Figure 12).

Figure 12 Change in Employee Turnover after Implementation of Drug Testing



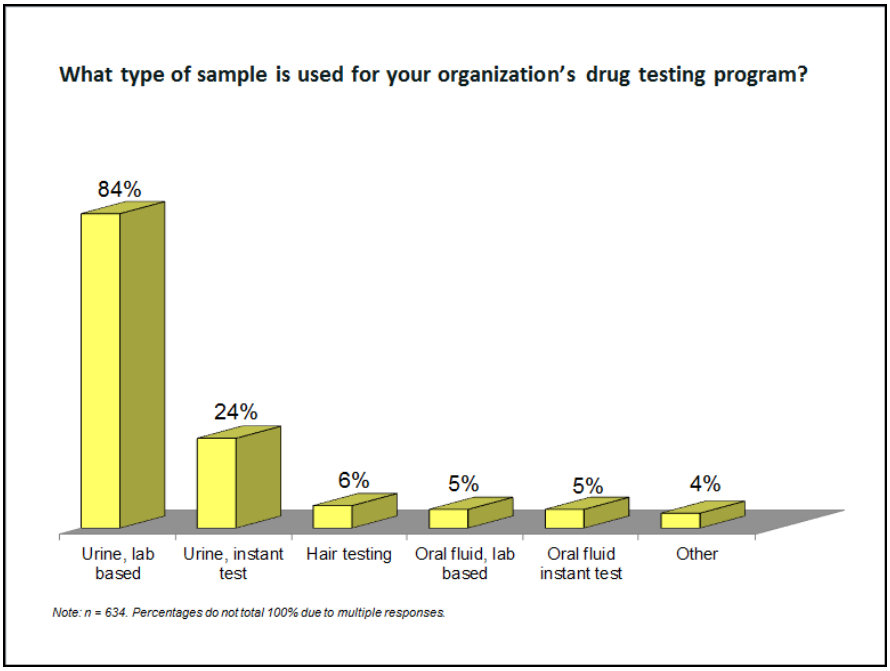
The industry has developed reliable instant drug testing devices for urine testing, so in the study we asked to know if companies were moving away from off-site laboratory based testing and moving toward in-house instant testing. There are higher costs associated with employees going for drug tests off-site, time waiting for the test and other associated costs. However, human resource professionals reported that 77% still used off-site laboratory facilities to collect specimens and test for drugs. Only 23% used a combination of off-site and in-house testing (see Figure 13).

Figure 13 Where Drug Testing is Done



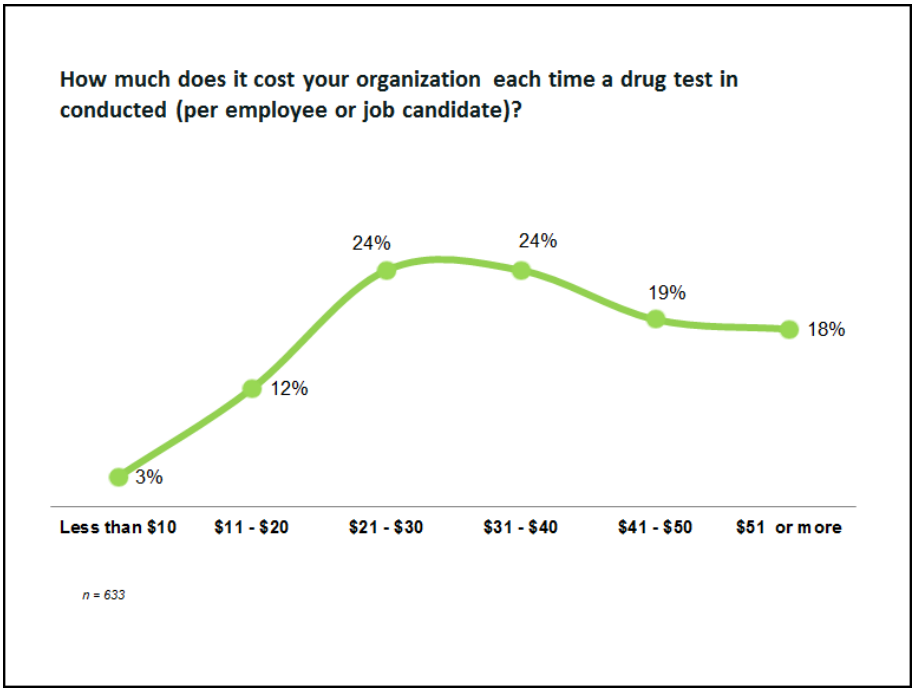
When companies were asked what type of drug testing sample they used, the human resource professionals responded that 84% used urine as the sample of choice, with the test performed in an off-site laboratory. Only 24% responded that they used instant urine tests, only 6% used hair testing, and 5% used instant or off-site laboratory oral fluid tests (see Figure 14). This was surprising as the availability and interest in on-site instant drug testing devices (urine and saliva) have been steadily increasing. Respondents did not use these new technologies, but rather, used more traditional laboratory based urine tests.

Figure 14 Drug Testing Samples



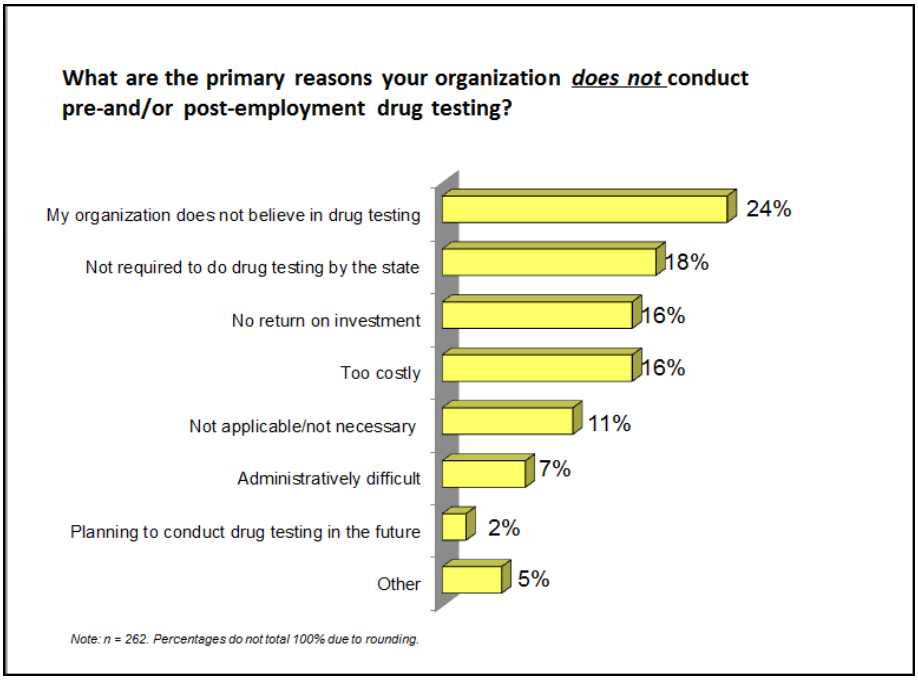
As expected the average price for a drug test reported by the majority of respondents (67%) ranges between $20-$50. This would vary depending upon the drugs being tested, collection and shipping fees, and Medical Review Officer (MRO) services. The low end cost of $10-$20 reported by 15% of the respondents was most likely in-house instant urine tests (see Figure 15). This is interesting data as the price for a drug test nationally is about $40 all inclusive of specimen collection, testing, and MRO services, suggesting our respondents are accurate in their responses for this question and potentially all others.

Figure 15 Drug Testing Costs



Probably the most interesting responses were from those human resource professionals whose organizations did not conduct drug testing. Twenty-four percent of the responders said the primary reason was that their organization did not "believe" in drug testing. We did not get more information from this group, but this intriguing response begs for more information. Did they not believe in the increased productivity, lower absenteeism, accidents and turnover, as reported by those who conduct drug testing? Or did they not believe in drug testing because they viewed it as an infringement of personal rights. The next highest reason, 18%, is that drug testing was not required by the state or government, which is a good reason to have such legislation. The next two responses of 16% were "no return on investment/too costly" suggesting that this is an area that needs to be better educated by the drug testing industry. The remaining responses also indicate that education about the applicability of drug testing and administrative ease at 7% played some role in why the organization did not conduct drug testing (see Figure 16).

Figure 16 Why Organizations Do Not Test For Drugs



Conclusion

The majority of human resource professionals surveyed in this brief study report that their organizations have a drug testing program; furthermore a majority of those respondents report some perceived benefits in reduced absenteeism and workers' compensation claims, and increased worker productivity/performance. More than half of employers surveyed conduct drug tests on all job candidates, while only 29% do not conduct drug tests on any job candidates. In addition, most employers who use tests on job candidates have done so for seven years or more. When employers do post-employment drug tests, the most common tests are post-accident testing, random testing, and reasonable suspicion testing. The most notable benefits of workplace drug testing are as follows: improvement in productivity, a decrease in absenteeism rates, a decrease in workers' compensation incidence rates, and a decrease in employee turnover rates. More research is needed to fully document these initial finding but the significance is that it again documents the perceived benefits of drug testing as an effective cost management tool a decade after it was initially reported to do so in the workplace.

Author Information

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David M Martin, PhD is the author of over 100 publications, presentations and book chapters on substance abuse, drug testing and treatment. He has been involved with substance abuse research since 1973 while a research associate at Yale Medical School Department of Psychiatry. He is now the Scientific Director for the US State Department National Drug Abuse Survey in Afghanistan, a courtesy professor at the University of Florida Medical School Department of Psychiatry and Chairman of the Drug and Alcohol Testing Industry Association (DATIA).

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Laura Shelton is the Executive Director of the Drug and Alcohol Testing Industry Association (DATIA) where she manages and oversees all of the association's operations and programs. She has been involved in the drug and alcohol testing industry for over 14 years. Ms. Shelton works to ensure that DATIA represents the needs of its members and provides high-quality education, information, and resources to professionals involved in drug and alcohol testing and drug-free workplace programs.

Conflict of Interest

I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled “Drug Testing Improves Attendance and Productivity While Lowering Workers’ Compensation Incidence Rates and Employee Turnover”

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