

DRUG TESTING AS AN EMPLOYMENT RIGHT: AN ECONOMIC APPROACH*

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ABSTRACT

This article explores the effects of expanding employment rights to include drug testing. The article reviews some of the issues covering drug use and drug testing in the workplace and how they relate to employment rights. The effect of drug testing as an employment right is examined using economic theory. The economic approach argues that drug use as a solution to the adverse selection problem creates other problems such as negative externalities. The article concludes that adverse selection and negative externalities may not be solved by making drug testing an employment right.

Conventional definitions of privacy refer to the interest employees have in controlling the use made of their personal information and in being able to engage in behavior free from regulation or surveillance [1-2]. Traditional arguments concerning privacy in the workplace stem from three main issues: the kind of information collected and retained about employees, how that information is used, and the extent to which it is disclosed to others. These issues may lead employers to find themselves in situations that have the potential to result in a breach of acceptable behavior. The difficulty in defining "acceptable" behavior lies in maintaining a balance between the legitimate business needs of an organization, between the common good and personal freedom of an employee, and that employee's feelings of dignity and self-worth.

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This perspective of privacy is evidenced in cases when employers make decisions to hire, promote, train, or transfer employees largely based on tests, interviews, situational exercises, performance appraisals, and other assessment techniques. Like employers, developers and users of these instruments must question the instruments' fairness, propriety, and potential for violation of individual employees' rights. In addition to the issues of employee rights, managers who use assessment instruments must be concerned about instrument accuracy and assuring equality of opportunity among all employees. Instrument concerns also include guarding against invasion of privacy, assuring respecting employees' rights to know, imposing time limitations on data, using the most valid procedures available, and treating applicants and employees with respect and consideration [3].

Human resource management is not governed by hard-and-fast rules. Rather, the field adapts itself to changes in social norms. What society considered ethical in the 1950s and 1960s (i.e., deep-probing selection interviews; management prescriptions of standards of dress, ideology, and lifestyle; refusal to let employees examine their own personnel files) would be considered inappropriate today. Society's growing concerns for employee rights has placed organizational decision-making policies in the public domain. Benefits realized from this concern are a sensitizing of both employers and employees to these issues. The challenge in managing human resources lies not in the mechanical application of standard prescriptions but rather in the process of creating and maintaining genuine relationships from which to address problems that cannot be covered by prescription [4].

Managers today rate substance abuse in the workplace as one of the key problems they must face. This is understandable given some of the statistics reported. According to the National Council on Alcoholism and Drug Dependence, about eighteen million Americans have a serious alcohol abuse problem. Annual deaths due to alcohol abuse number about 105,000. About 25 percent of all hospitalizations are due to alcohol-related problems, and alcohol is involved in 17 percent of industrial accidents. Illegal substance abuse is a significant problem as well. The 1996 National Household Survey reported thirteen million Americans currently use illegal drugs [5]. The survey showed marijuana as the primary drug for 54 percent of drug users. About 23 percent of respondents use marijuana in addition to other illicit drugs (such as crack or cocaine), and 23 percent use other illicit drugs (such as inhalants). The survey also showed 6.2 percent of active drug users are employed full-time, 8.4 percent are employed part-time, and 12.5 percent are unemployed [5].

Substance abuse (alcohol and illegal drugs) in the workplace is expensive for the employer in terms of reduced productivity, time lost from work, and treatment costs. It has been estimated that alcohol abuse costs society \$86 billion a year in lessened productivity, treatment, premature deaths, accidents, crime, and law enforcement. Drug abuse is no less insidious. It cuts across all job levels and

types of organizations. The cost of drug use has been estimated to be \$30 billion in annual productivity losses [6-7].

Lehman and Simpson found a "typical" employed recreational drug user is late three times as often as fellow employees, requests early dismissal or time off during work 2.2 times as often, has 2.5 times as many absences of eight days or more, uses three times the normal level of sick benefits, is five times as likely to file a workers' compensation claim, is involved in accidents 3.6 times as often as other employees, and is one-third less productive than fellow workers [8]. In other studies, Caste [9] and MacDonald [10] found more extensive absenteeism and tardiness, decreased ability to complete tasks, greater numbers of mistakes at work, and more on-the-job injuries among drug-using employees than among nondrug users.

A longitudinal study of 5,465 U.S. Postal Service job applicants reported that, on average, after 1.3 years of employment, employees who had tested positive for illicit drugs had an absenteeism rate 59.3 percent higher than employees who had tested negative. Those who had tested positive also had a 47 percent higher rate of involuntary turnover than those who had tested negative. However, there was no relationship between drug test results and measures of injury and accident occurrence [11].

These studies indicate that drug use in the workplace continues to be a problem. To address this problem, federal, state, and local governments have enacted more laws to control and prevent drug use [12]. For example, in 1988 Congress enacted the Drug-Free Workplace Act. The law prohibits the manufacture, distribution, possession, and use of controlled substances in the workplace. Alcohol is excluded from the act, although most employers subsume alcohol policy as a separate consideration within drug-free workplace policies. The act applies to companies that receive any federal grants or federal contracts in excess of \$25,000 and most government employees.

Under the Drug-Free Workplace Act of 1988, employers are required to establish and publish statements that prohibit the use, manufacture, sale, and possession of drugs in the workplace. In addition, employers are required to establish awareness programs. Under the law, employees are required to acquire and maintain an understanding of their company's policies and penalties that cover drug use in the workplace. They must also report to the employer any conviction on a drug-related charge within five days. This can range from a DWI to an actual drug possession.

At the same time, more private firms have implemented drug-abuse policies to detect, correct, and prevent drug use in the workplace. One of the most common mechanisms used to detect and deter the use of illicit drugs is urine testing in the workplace [13-14]. In 1996, Hartwell and colleagues found that nearly 48 percent of private worksites with fifty or more employees routinely conduct drug testing. This represents an increase of 16 percent over the 1988 survey conducted by the U.S. Department of Labor's Bureau of Labor Statistics [15].

Drug testing as a mechanism to control drug use in the workplace, however, has been criticized as a violation of privacy and employment rights. In this article we offer an *economic* approach to examine the effects of drug testing on employment rights. First, the article presents some of the legal issues relating to drug use in the workplace and a brief history of employment rights.

ISSUES RELATING TO DRUG USE IN THE WORKPLACE

In the years following the passage of the Drug Free Workplace Act, Fourth Amendment [16] protections against unreasonable searches were often cited in opposing employee drug-testing programs. This strategy backfired, as the Supreme Court set important precedents in *Skinner v. Railway Labor Executives Association* [17] and *The National Treasury Employees' Union v. Raaab* [18]. In both cases, the court ruled in favor of the organization's drug-testing [19-22].

In the future, labor and civil liberties interests may challenge the legality of drug testing under the Fifth and First Amendments. Many states are implementing their own drug-testing policies, and the constitutionality of these has yet to be settled. But for now, employers assume that few legal risks are attached to a carefully implemented drug-testing program.

The popular press and business periodicals have stated that the benefits of drug testing for employers outweigh the costs. On the other hand, academically oriented research has raised questions about the cost effectiveness of drug testing. Using a plausible-sounding set of assumptions regarding the prevalence of drug use and the cost of testing, Zwerling and colleagues estimated that implementation of drug testing in the U.S. Postal Service could have saved the agency \$162 per applicant hired [23, 24]. However, the authors noted that these results depend on *specific* assumptions. Any change in these assumptions may result in a conclusion that drug testing is not cost-efficient [23, 24].

HISTORY OF EMPLOYMENT RIGHTS

The scope of employment rights enjoyed by workers at any particular time has depended on the prevailing social, economic, and political conditions in place at that time. Between the end of the Civil War and the turn of the century, the employee-employer relationship was determined by a *laissez-faire* marketplace, free of regulation. Paramount protection was given to the workers' "right" to contract to work under any conditions specified by the employer. Thus, a workweek consisting of six twelve-hour days was common for both adults and children. Attempts to unionize were met with violent resistance, as in the 1892 Homestead strike of steelworkers against Carnegie Steel.

At the turn of the century, this settling changed. Beginning in 1905 the Supreme Court began to consider the question of the power of the state to legislate versus the right of the individual to liberty of person and freedom of

contract. For example, in *Muller v. Oregon*, the constitutionality of legislation designed to regulate the working conditions of female laundresses was challenged. The Court declared:

It is undoubtedly true, as more than once declared by this court, that the general right to contract in relation to one's business is part of the liberty of the individual, protected by the Fourteenth Amendment to the Federal Constitution; yet it is equally well settled that this liberty is not absolute and extending to all contracts, and that a State may, without conflicting with the provisions of the Fourteenth Amendment restrict in many respects the individual's power to contract . . . [25, at 421].

The state's police power to ameliorate unsafe working conditions became the basis for much of the legislation passed during the administrations of Teddy Roosevelt, William Howard Taft, and Woodrow Wilson. Following World War I, the 1920s saw a more conservative social climate. In 1922, the Court struck down a congressional attempt to tax companies employing child labor.

But as a result of the Great Depression, the 1930s again saw a public desire for a more expansive government role in the economy. Franklin Roosevelt's New Deal saw unparalleled gains by employees, including the right to collective bargaining (though attempts to unionize were still met with violence in some instances). The Court, under Congress' power to regulate interstate commerce, increasingly upheld legislation. Following the end of World War II, the 1940s and 1950s saw a public and governmental reaction to the perceived excess of union power. Legislation defined union-based, unfair labor practices and placed stricter controls on union elections. The civil rights movements of the 1960s and 1970s saw the passage of legislation defining workers' rights against race, age, and gender discrimination. Today, protection has been extended to those with physical and mental impairments.

Current employment rights range from labor laws establishing a minimum wage and safe working conditions to profit sharing and fringe benefits [26]. Future discussion of employment rights centers on the scope of rights in the face of new technologies such as electronic mail and increased social sensitivity to issues such as sexual harassment.

ECONOMICS AND EMPLOYMENT RIGHTS

Economics is a social science that can be used to analyze the effect of employment rights. Economics, microeconomics in particular, is a valuable science because it studies how individuals and firms use their scarce land, labor, capital, and budgetary resources to meet their objectives [27]. According to microeconomics, the individuals' objective is to maximize his/her utility or welfare and the firms' objective is to maximize profits. Economic theory, thus, can be of help in determining how individuals' and firms' abilities to achieve those objectives

are affected by government-mandated benefits. In particular, when the government intervenes either to protect the rights of nondrug users in the workplace, or to protect the rights of drug users in the workplace, economics can be used to determine the net benefits for employees and employers.

Neoclassical economists assumed that the right to sell one's time to the highest bidder made labor a commodity that, alongside land and money, helped develop the self-regulating market. In 1776, Adam Smith, in his landmark book *The Wealth of Nations*, wrote:

The property which every man has in his own labor, as it is the original foundation of all other property, so it is the most sacred and inviolable. The patrimony of a poor man lies in the strength and dexterity of his hands; and to hinder him from employing this strength and dexterity in what manner he thinks proper without injury to his neighbor, is a plain violation of this most sacred property [28, pp. 121-122].

In Smith's theory of pure market capitalism, no additional workers' rights would be necessary because items of value to the worker could be acquired through individual bargaining with employers.

Neoclassical economics argues that perfect information exists in the labor market. That is, workers and firms know all the risks and benefits of a job. Thus, a worker maximizes his/her welfare or utility by choosing a company that provides a certain combination of risks and wages and job-related benefits. Neoclassical economics assumes that workers maximize their welfare by trading time, freedom, or safety for higher wages. The firm maximizes profits by offering poor or unsafe working conditions but higher wages [29]. When the government intervenes and makes safety a right, both individual employees and employers are affected.

Economists have studied the effects of mandated benefits on the labor market [30, 31]. For example, one of the most researched questions is whether minimum wage laws (an employment right) create unemployment. Neoclassical economists argue unemployment is an unintended consequence of minimum wage laws. They argue that, while a minimum wage may benefit some low-wage workers, it harms others by reducing their opportunity for employment.

Within neoclassical economics, workers receive greater benefits under a system wherein their freedoms are not regarded as rights than under a system wherein the government defines these freedoms as rights. Under the latter system, workers who do not place a high value on a particular freedom lose an opportunity to acquire a higher wage by voluntarily waiving this freedom. The result of transforming the freedom into a legal right is efficiency loss. As Sen observed, "if you can improve one's utility [welfare] level by selling the right to free speech, then prohibition against selling the right inhibits efficiency by denying a Pareto-improving exchange" [32, pp. 152-157].

Under conditions of less-than-perfect information, however, economic theory argues that some sort of mechanism can be implemented to correct the market. Establishing employment rights by the government is one way to correct the market. According to Ehrenberg, employment rights can be justified if 1) the right in question is valued by members of society (e.g., the right not to be discriminated against based on race, sex, religion, or national origin); 2) the right is helpful in improving production, efficiency, and welfare by correcting market imperfections or imperfect information (e.g., the right to unemployment compensation helps mitigate business recessions); and 3) the right is important in terms of its redistributive impact [33]. The minimum wage is often promoted as a cure for poverty.

One of the most common forms of imperfect information is adverse selection. Adverse selection occurs when one of the agents involved in an economic transaction knows more or less than the other agents involved in the economic transaction. Adverse selection is often present in insurance markets, where individuals know their own risk behaviors or preexisting health conditions, but potential insurers do not. Adverse selection makes individuals and firms enter into contracts that do not maximize their objectives [34].

Insurance firms try to minimize the adverse selection problem by requiring lengthy applications, imposing waiting periods, and offering incentives such as discounts if the policy does not take effect and benefits are not paid for a long period of time. These strategies decrease the incentive for terminally ill persons to purchase a health insurance policy. Healthy individuals will benefit from such policies; however, these policies can also result in reducing access to medical services for the persons who are most in need of medical attention. Managed care has emerged as another market-driven solution to adverse selection. In addition, legislative bodies have begun to consider intervening in the area of insurance markets to protect potential consumers who have less than optimal health status. Again, government intervention affects both the individual and the insurance company.

Another example of adverse selection occurs in the market for used cars. In this case, the buyer of the used car knows less than the seller. This imperfect information leads individuals to make decisions that may not maximize their welfare. In this case, used car inspection firms have emerged as a partial solution to the adverse selection problem. In addition, "lemon laws" protecting consumers have been enacted in many states.

These concepts can be applied to drug use in the workplace since drug use by individuals creates an adverse selection problem. As mentioned above, several studies suggest that non-drug users are more productive employees than drug users. However, few employers are able to differentiate between drug users and non-drug users based on the kinds of external characteristics users are likely to exhibit in a job interview. In the case of drug use, the firm knows less about an applicant's drug use than does the applicant. This situation places employers at a severe disadvantage *vis a vis* drug-using employees and applicants.

Without any visible differentiating characteristics, drug users will “pass” as nonusers and will receive the same rate of pay unless and until their lower productivity rate is measured and the employer takes notice of it. Assuming the productivity of non-drug users is higher than the productivity of drug users, the equality in rate of pay between invisible drug users and non-drug users results in drug users receiving a higher rate of pay per unit of productivity than non-drug users. One way a non-drug user may be able to differentiate himself/herself from drug users, and thus receive early compensation for his/her greater rate of productivity, is by sending a signal such as willingness to take a drug test [35]. For current employees, drug testing serves as a confirmation of drug-free status. Testing is attractive to workers who are not drug users and to firms because it reduces the number of drug users they employ. Drug testing confers distinct benefits to employers and to non-drug-using employees. Thus, the perceived benefits of drug testing derive from the belief that it may soften the effects of adverse selection.

Currently, drug testing is mandated only for some firms, and not for others. Although this system cannot be characterized as a perfectly free market, most firms operating in the private sector are not pressured by the government to introduce drug testing. However, both employers and non-drug-using job seekers have reasons for favoring drug testing. Workplace drug testing is a mechanism whereby workers learn about jobs, and employers learn about workers. Employers regularly devote some of their resources for the exchange of this information. According to economic theory, there is an optimal amount of investment in these means, under which neither employers nor employees spend too much time getting to know each other.

Implementation of drug testing by firms as a solution to the adverse selection problem has its drawbacks, however. When the firm implements a drug-testing policy, the drug user will go to a firm without drug testing. As the number of firms with drug testing increases, the number of employers for which drug users may work is reduced (saturation). Meanwhile, the advantage conferred by testing on non-drug users means that non-drug-using employees and applicants are likely to encourage employers to implement drug testing. If only a subset of firms have a drug-testing policy (as is the case currently), testing creates a negative externality for firms that do not test because it reduces the quality of the applicant pool from which these firms may select employees. An externality occurs when an agent does not bear the full cost (negative externality) or enjoy the full benefits (positive externality) of an action.

Since firms and non-drug-using employees have incentives for drug testing and since firms that do not employ drug testing will be at a competitive disadvantage, most firms will eventually employ drug testing. Given that the costs of treatment in the free market are borne almost entirely by drug users, drug users will be likely to exit the labor market, or devise effective strategies for evading detection, rather than becoming non-drug users. One such strategy may be to substitute less

detectable but more potent drugs such as crack or cocaine in place of more detectable drugs such as marijuana. To what extent drug testing has caused substitution of drugs remains to be researched.

If drug testing causes all drug users to exit the market, non-drug users will no longer receive a premium simply for being non-drug users, although they will continue to enjoy some benefit from the smaller size of the pool of applicants that will result from the absence of drug users. Employers will continue to receive multiple benefits from drug testing, but employees—including non-drug-using employees—will receive few benefits once market saturation occurs. Thus, drug users will be worse off than before drug testing was voluntarily implemented by firms, non-drug users will only be marginally better off, and employers will be better off. Under conditions of market saturation, the costs of testing are unequally borne by employees, while the benefits accrue almost exclusively to employers.

Mandatory drug testing or banning drug testing has its drawbacks as well. If the government designates a certain liberty as a “right,” workers may be better off or worse off, depending on their preferences for those rights. If the government declares that workers have the right not to be tested, then workers who value the right to refuse drug testing (including drug users) will be better off, but workers who do not value that right (including many non-drug users) are not better off. In fact, they are worse off because they can no longer signal their drug-free status by their willingness to submit to a drug test. They are forced to exchange a competitive advantage for a private liberty they do not use or want.

Workers sell the right to be tested by agreeing to be part of a company that does drug testing. If a worker can gain competitive advantage by selling his/her liberty to use drugs either inside or outside the workplace, and if banning drug testing prevents an employer from purchasing this right, then the ban amounts to a prohibition against selling the right. Thus, making such a liberty into an employment right inhibits efficiency by denying to non-drug-using applicants and employees an improving exchange.

On the other hand, if the government imposes mandatory drug testing in order to grant to non-drug users the ability to sell their liberty to use drugs, we get the same result as that obtained under market saturation. Non-drug users will be worse off because they will no longer be able to separate themselves from drug users by signaling willingness to submit to a drug test. They will be forced to find another signal to send employers to serve as a quality measure. In addition, if drug testing is made mandatory, drug users will be worse off and may drop from the labor force. How many drug users will enter or exit the labor market as a result of changes in drug-testing policies depends on how sensitive workers are to drug testing. This, of course, can be the focus of future research.

If drug testing is left to the employers and does not become part of workers’ employment rights, a separating equilibrium will occur. That is, all drug users will sort themselves into firms with no testing and all non-drug users will sort into

firms with testing. As we have shown, this situation is unstable, and will eventually result in all firms implementing drug testing. On the other hand, if testing is prohibited, a pooling equilibrium will occur. That is, both drug users and non-drug users will work for all types of firms. If testing is made mandatory, then a percentage of drug users will drop from the labor market. Future research should examine the relationship between the preferences of the firms (test versus no-test) and the preferences of both drug users and non-drug users. This line of research, for example, may be conducted by comparing the distribution of workers among firms in two states with different testing policies.

SUMMARY AND CONCLUSION

Drug use in the workplace continues to be an important issue facing employers and public health officials. Employers have to weigh the employment rights of individuals, the safety of coworkers and customers, and the productivity of the firm. Since drug users cannot be distinguished from non-drug users, employers face an adverse-selection problem. Drug testing has emerged as the main mechanism used by employers to address the problem.

This article argues, using economic theory, that drug testing is not the silver bullet to the adverse-selection problem. In addition, the article argues that free-market drug testing creates externality problems for nontesting firms and that mandatory drug testing and prohibition of drug testing also have adverse effects on both employees and employers. The effects of drug testing remain to be empirically tested in the future, but this article shows the economic approach can enhance our understanding of the effect of drug testing as an employment right.

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