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**Alcohol/drug testing and employee assistance programs as they
affect candidates at The Iowa Regents Universities in the job
search process**

Hinders, Sally Lee Walker, Ph.D.

Iowa State University, 1991

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**300 N. Zeeb Rd.
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Alcohol/drug testing and employee assistance programs as they affect
candidates at The Iowa Regents Universities in the job search process

by

Sally Lee Walker Hinders

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CHAPTER I. INTRODUCTION

Drug use is widespread throughout the United States. In fact, it appears that drugs have become part of the American way of life; alcohol, caffeine, tobacco, and other over-the-counter drugs are present in most households. College students are not immune to use and abuse of alcohol and other drugs. Approximately 85-90% of college students report that they drink alcoholic beverages. Of those students, approximately 7% are defined as alcoholic (Saey & Beck, 1984). The United States Department of Health and Human Services (1987) estimates that in the 18 to 25 year old adult population, representing college graduates and other young adults entering the work force, 65% have used illicit drugs, 44% within the last year.

This alcohol and drug use does not stop when a student graduates and enters the work force. It is estimated that one in every five workers ages 18-25 and one in every eight workers ages 26-34 use drugs on the job (National Institute on Drug Abuse, 1989). It is becoming more and more apparent that many people with substance abuse problems do not fit the stereotypical alcoholic or drug abuser. Rather, a typical drug abuser is well educated (14 years of education), employed (77%), and well-paid (37% earn over \$25,000. annually), yet also engaged in illegal activities to support the drug habit (56%).

Excessive use and abuse of alcohol and drugs, both legal and illegal, has had a significant effect within the work place. One report estimated that alcohol accounted for \$100 billion in lost productivity (National Institute on Drug Abuse, 1987). Other related work problems include increased employee turnover, reprimands, suspensions, sick leave, medical costs, and work related accidents.

As a result, employers have searched for ways to assess and deal with the problems of alcohol and drug abuse within the work place. Drug testing, pre-employment or during employment, has emerged as one possible solution to assess or prevent the problem (Zeese, 1988). The most commonly utilized screening device is a urine test, which to date has been used primarily to test for illegal drugs; prescriptions, over-the-counter medications, and other legal drugs have not been monitored to the degree illegal substances have been. The results of testing may identify prospective employees and current employees who may be endangering the safety of themselves and their co-workers, as well as increasing company costs. These individuals are earmarked as employees in need of assistance.

One means of maintaining company safety and costs, while providing assistance to employees, is an "Employee Assistance Program" (EAP). The goal of EAPs is to acknowledge the employee as a valuable company team player; to offer assistance to that employee rather than to discipline or fire him or her; and recognize recovering employees as productive and effective (U.S. Department of Labor, 1989). EAPs are sponsored and run internally, contracted through an outside agency, or operated jointly by the employer and an external organization. The key to formulating a successful EAP is the development of programs and services that meet the needs of the unique characteristics, dynamics, and culture of the organization.

As a result of the increase in alcohol and drug abuse within the work force, the alcohol and drug use of current employees will continue to be monitored. Employers, in turn, will continue to be challenged to develop EAPs that respond to the ever-changing

needs of their employees. The consensus among employers is that, in order to best meet the needs of the employees and employers, continuous monitoring of prevention, assessment, and implementation of programs is necessary (US Department of Labor, 1989).

Statement of the Problem

Studies confirm that alcohol and drug abuse within the work place continue to rise. In response to this growing problem, employers have established corporate controls (such as pre-employment drug testing, drug testing on the job, and EAPs). Research specific to the prevalence, types, and effectiveness of these programs among companies recruiting through the placement offices servicing students in business and liberal arts and sciences at Iowa State University (ISU), the University of Iowa (U of I), and/or the University of Northern Iowa (UNI) is necessary. Results will provide employers with information regarding drug testing and EAPs, and students with first-hand information regarding testing policies which may affect their job search process.

The objectives addressed in this study are to (a) assess employers (those who pre-test candidates and those who test employees) with regards to EAP components specifically geared toward alcohol and drug abuse; (b) identify some characteristics of employers that utilize drug testing; and (c) describe characteristics that are conducive to successful EAPs geared to alcohol and/or drug abusive employees.

Statistical data from analyses and descriptive data from open-ended responses are helpful in determining and analyzing the differences among employers and to provide

college placement personnel with information that will enable them to prepare up-to-date materials in order to better educate and prepare graduating seniors for the job search process.

Statement of Purpose

The purposes of this study are:

1. to explore differences in attitudes among employers with regards to twenty EAP components specifically geared toward alcohol and drug abuse ;
2. to explore differences in attitudes among pre-employment drug testing and drug testing within the work place; and
3. to identify characteristics that are conducive to successful EAPs.

Definition of Terms

1. Accuracy-Correctness of the result in reflecting the true situation (Zeese, 1988).
2. Aftercare programs-support groups developed to help individuals who have gone through formal alcohol/drug rehabilitation maintain their sobriety. Recovering alcoholics and addicts meet on a regular basis (usually weekly) to discuss current issues in their lives and to provide feedback to one another regarding decision making and their recovery progress (National Institute on Drug Abuse, 1983).
3. Alcoholics Anonymous (AA)-a support group which focusses on helping recovering alcoholics maintain their sobriety. It is sometimes referred to as a "twelve step program." Twelve steps serve as the guide for this self-supporting organization,

which has meetings throughout the United States and the world (Alcoholics Anonymous World Services, Inc., 1976).

4. Analyte-What drugs or their metabolites are being tested for (Zeese, 1988).
5. Chain of custody-organized and systematic record keeping regarding the collection, analysis, and results of drug testing samples. The quality of such records support legal documentation (Zeese, 1988).
6. Confirmatory Tests-The second test performed when the initial test results are positive. It is different from the initial screening test in that it is more sensitive and accurate. A widely accepted confirmatory test is the Gas Chromatography/Mass Spectrometry (Zeese, 1988).
7. Cut-off Point-The point at which the specimen will be reported as negative for a given substance; if the specimen test is equal to or above the cut-off point it is reported as positive (Zeese, 1988).
8. Detection limit-The smallest quantity of drug that can reliably be detected by using a method with a high level of confidence (Zeese, 1988).
9. EAP-Employee Assistance Program (U.S. Department of Labor, 1989).
10. Screening Tests-The initial test for alcohol and other drugs, also known as the presumptive test. It is generally insufficient both scientifically and legally to determine the prevalence of drugs in the human system. The most common screening tests are immunoassay tests, chromatography tests, and color tests (Zeese, 1988).
11. Sensitivity-The minimal concentration of a drug in an undiluted sample that is detectable with high probability (Zeese, 1988).

12. **Specificity**-Whether the test can determine if the particular drug sought is present (Zeese, 1988).

13. **Substance Abuse**-A disease in which a person's consumption of alcohol and/or other drugs repeatedly interferes with the individual's health and/or job performance (State and Local Government Labor-Management Committee, 1988).

Statement of Assumptions

1. The survey items used in this study are valid and reliable.
2. Subjects who answered the survey provided honest and accurate responses.

Research Questions

1. Do selected demographic characteristics of employers affect their perceptions of twenty Employee Assistance Programs (EAP) components?
2. Do companies with varying testing policies (pre-employment testing and current employee testing) differ in perception of twenty EAP components?
3. Is there a dependent relationship among testing policies (pre-employment and current employee) and EAP components?

Limitations of the Study

1. Subjects were confined to those employers who recruited through the placement offices servicing students in business and liberal arts and sciences at Iowa State University (ISU), the University of Iowa (U of I), and the University of Northern Iowa

(UND) during the 1989-1990 academic year. Hence generalizations may only be made to this subset.

2. The employers surveyed primarily hire graduates with business related majors. Hence generalizations may only be made to this subset.

3. Respondents are limited to one-hundred-thirty-two employers. Due to the sensitive nature of the study, there was insufficient information available to compare non-respondents to respondents. Thus, results may be unique to this particular group of respondents.

Significance of the Study

Results of the study will indicate the extent of EAPs specifically geared toward alcohol and drug abuse and pre-employment drug testing and drug testing in the work place. The data will be analyzed and translated into information which identifies characteristics of employers who are likely to utilize drug testing and portray characteristics conducive to successful EAPs geared toward alcohol and substance abuse. Data will also be helpful in preparing materials and programs that will enable the college placement personnel to better educate and prepare graduating seniors for the job search process, highlighting selection trends among employers who recruit in the midwest.

Research Design

The design is survey research. A questionnaire was mailed to all employers recruiting through the placement offices servicing students in business and liberal arts and

sciences at ISU, U of I, and UNI during the 1989-1990 academic year. It is an explanatory survey in that an attempt was made to collect data that would enable the researcher to accurately portray the current situation regarding alcohol and other drug testing and EAPs among employers.

Organization of the Remainder of the Study

Chapter II presents the literature review, including discussion of trends and major studies with regards to drugs and drug testing in the work place. Specifically the research addresses the extent of drugs in the work place and drug testing as a response to the problem of drugs in the work place; employee assistance programs (EAPs), including an historical definition of EAPs, guidelines for the development of EAPs, and examples of successful EAPs; and legal considerations, such as the legality of drug testing and issues related to private and public employment.

Chapter III describes the design of the study and methodology. The chapter provides information regarding data collection procedures, instrumentation, population and samples, and data analysis techniques.

Results of data analysis are described in Chapter IV. Findings are presented and discussed in relation to hypotheses testing, as well as profiled through discussion of data documented from responses to the open-ended questions.

Chapter V summarizes the study. The chapter also contains conclusions, implications for educational practice, and recommendations for further study.

CHAPTER II. REVIEW OF THE LITERATURE

Introduction

Recreational use of drugs, including alcohol, dates back to 3000 BC, but it was not until the 1960s that abuse of alcohol and other drugs became a major concern for the general United States. During that time period, college students began to smoke marijuana, and celebrities further legitimized the use of other drugs such as L.S.D. and cocaine (Elliott & Hosty, 1985). Abuse of alcohol and other drugs on college campuses continues to flourish, and is further perpetuated by the glamour associated with national advertisements which suggest the message that if you drink alcohol and use drugs, you can improve your status in the American society (Elkins, 1986).

Unfortunately, one out of every four children who view, read, or listen to such advertising is growing up in a home where one or both of his or his parents are defined as problem drinkers or alcoholics. Yet, despite massive efforts to educate individuals regarding the reality of substance abuse, the numbers of people involved in abuse of drugs, including alcohol, continues to increase (Elliott, 1987). No segment of society is unaffected; skilled and unskilled, educated and uneducated, rich and poor, male and female, and young and old are involved in substance abuse.

The numbers of those affected are alarming. According to Wrich (1986), approximately 10 million persons in the U.S. fit the clinical definition of alcoholics. Family members, co-workers, and supervisors affected by alcoholics total an additional 40 to 50 million. Alcoholism, combined with other forms of substance abuse, affects approximately one-third of the U.S. population (80 million people).

Thus, the effects of alcohol and drug abuse are devastating. According to Elkins (1986), each day alcoholism alone kills 100 people, injures 3,000, causes 16 suicides, contributes to 400 broken homes, and causes 500 cases of brain damage and 4,000 accidents. Those who survive do not leave their substance abuse problems outside their work environment, but take them to the work force in greater and greater numbers (Elliott & Hosty, 1985; National Institute on Drug Abuse, 1987; U.S. Department of Labor, 1989; Wrich, 1986).

The social, economic, and legal costs of alcoholism and other drug abuse to business total nearly \$100 billion in lost productivity annually (National Institute on Drug Abuse, 1987). As a result, there is consensus among government and business that something must be done to lessen these costs and to help people who suffer from substance abuse. The remainder of this chapter focusses on possible solutions to the problem of drug abuse in the work place, specifically the impact of drugs in the work place and the use of drug testing to identify substance abusers; employee assistance programs geared to substance abusers; and the legal implications of drug testing and employee assistance programs in the work place.

Drugs and Drug Testing in the Work Place

Use of drugs in the work place

Efforts by the legal system and social service agencies to deal with the problem of substance abuse have not been highly successful (Hogler, 1987). As a result, according to Wrich (1986), attention of treatment programs has shifted to the work place. This

shift has occurred because of the assumption that individuals with addictive disorders, such as substance abuse, value their jobs and other social support networks. The intent of providing rehabilitation in the work place is to encourage and entice substance abusers to seek help so that they may remain employed.

Corporations have also been forced to consider the implications of alcohol and drugs in the work place. Employers are recognizing the negative impacts associated with the behaviors and attitudes exhibited by substance abusers. Decreased productivity and profits, along with the legal liabilities associated with an unsafe work environment are of great concern to employers (U.S. Department of Labor, 1989). Even those employers who were somewhat reluctant to reveal the drug problems in their organizations due to the possible public relations repercussions are beginning to acknowledge that the companies which they represent are not immune from the immense drug problem in our society (Hogler, 1987; Schuster, Weiheymayer & Mahoney, 1986; U. S. Dept. of Labor, 1989).

According to Shahandeh (1985), as many as 65% to 70% of persons with drinking problems are employed. The Association for Labor and Management Administration and Counselors (1988) estimates that 14% to 18% of our nation's work force is, in fact, alcoholic. And, Culhane (1988) reports that 10% to 23% of all workers in the U. S. use drugs while on the job.

Workers who are substance abusers not only create an unsafe work environment for themselves and their co-workers, but also create financial costs for the employer. The financial implications for employers in 1986 was estimated at \$128.3 billion (Staff,

1988). Included in this figure are manifest direct costs, such as payment for overt treatment of substance abuse; latent direct costs, including medical care costs for other less obvious related problems; manifest indirect costs, such as absenteeism, productivity losses, turnover, waste, and accidents; and latent indirect costs, including those costs associated with public relations, morale, and potential legal liability (Culhane, 1988; Elkins, 1986; Elliott & Hosty, 1985; Hogler, 1987; Meacham, 1987; Staff, 1989; Staff, 1988; Shahandeh, 1985; Wrich, 1986).

Results of studies related to substance abuse in the work place further illuminate the significant social, economic, and legal losses to the employee and employer. One study revealed that, of 196 autopsies from deaths in the work place, 13.3% had detectable blood alcohol levels; 9.2% had blood alcohol levels higher than .10%; in 17.4% of the deaths psychoactive drugs were involved; and 50% of the fatalities with positive drug screens were employees under the age 35 (Staff, 1989). Another study, conducted by Podolsky & Richards (1985), revealed that 36% of fatally injured truck drivers had evidence of alcohol consumption, and that alcoholics have between two and three times the accident rate of other employees.

Construction workers also appear to be in an unsafe work environment due to the prevalence of substance abuse. According to Meacham (1987), one out of every five construction workers in the U. S. has a substance abuse problem. Furthermore, construction workers are six times as likely to become involved in an accident, receive three times the average level of sick benefits, and are five times more likely to file workers compensation claims.

The automotive industry also reveals mishaps involving substance abuse. According to a study of General Motors (Shahandeh, 1985), drug dependent employees used the medical department 15 times more often for non-occupation problems than those who were drug free; lost 25 times more days on disability leave; had a higher number of days of unexcused absences; and met with two times as many occupational injuries. During a hearing before the U. S. Congress, it was stated that \$175.00 of the sticker cost on the average automobile comes from subsidizing the cost of alcohol and drug abuse on the job (Staff, 1988).

The transportation industry has also been plagued by substance abuse problems, including a train wreck in 1979, when a Conrail Engineer was high on marijuana and missed a stop signal and crashed into the rear of another train. Two people were killed as a result. Another accident, involving an intoxicated Los Angeles bus driver, injured dozens of people (Culhane, 1988).

Not only are the on-line, blue collar workers dangerous when consuming alcohol, but many executives are alcoholics as well. They, however, are often hidden behind layers of protection, including well-meaning secretaries and bosses. According to Flowers (1986), recovery of these executives would have started three to twelve years earlier had the executives understood the true nature of the problem and if the companies had been willing to provide confidential help instead of ignoring or covering up for poor performance and unacceptable work behavior. Seventy-six percent of the men and 38% of the women relied on this type of help, which kept them drinking alcohol and/or using drugs on the job.

Thus, it is clearly evident that substance abuse in the work place is in no way discriminatory; it has a direct and adverse impact on all types of businesses and all levels of employees within those organizations.

Drug testing: One response to the problem of drugs in the work place

While there is no difference among businesses and levels of employees with regards to substance abuse, there is a difference among corporate responses to the problem (Wrich, 1986). Employers are faced with a legal and moral obligation to provide a safe work environment, while maintaining the employee's right to privacy (Hogler, 1987).

One method that employers increasingly are turning to as a means of detecting drug use by applicants and current employees is drug testing (Du Pont, 1986). Drug testing began with Olympic sports and the military (Stone & Thompson, 1987). After a 1986 executive order by then-President Reagan, drug testing grew rapidly to include more than 50 federal agencies. This order demanded that, as a condition of employment, workers be drug free. The presence or absence of drugs was monitored by urinalysis and blood tests (Drexler, 1990). In 1988, the U. S. Department of Transportation also issued an order that required approximately 4 million non-government transportation workers to submit to random drug testing (Culhane, 1988). These actions grew out of a response to the increase in drugs in the work place.

In a 1990 Gallup poll of full-time employees, 97% felt that drug testing was appropriate at least under limited circumstances (Drexler, 1990). In a survey of Fortune 1000 companies, 81% of full-time employees favored on-site drug testing for employees

who could endanger others if their behavior was impaired, but only 27% of full-time employees supported random testing (Chernoff, 1989). In general, firms with drug testing tend to be larger, older, have fewer females, more minority employees, have a greater percentage of blue-collar/production workers, have younger employees, are more likely to be manufacturing industries, and more likely to be located in the northeastern section of the U. S. than companies who do not test for drugs. Furthermore, firms that do not test for drugs tend to prefer a "hands off" approach to employee problems, and fear legal implications associated with testing (Shahandeh, 1985).

According to Northwestern Lindquist-Endicott Reports conducted through the Northwestern University Placement Center, of well-known business and industrial firms, in 1989, 54% of the employers used drug testing as part of the selection process for permanent employees, compared to 47% in 1988 and 38.1% in 1987 (Lindquist, 1987; Lindquist, 1988; Lindquist, 1989). Similarly, in the 1989-1990 recruiting trends study of businesses, industries, governmental agencies, and educational institutions employing new college graduates, employers indicated that required drug testing of college graduates continues to rise (Sheetz, 1990). In the 1989-1990 academic year, 47% of surveyed employers required drug testing, an increase from 32% in 1988-1989 (Sheetz, 1990).

The increasing number of employers requiring drug tests of applicants and/or current employees reveals the importance of gaining a basic understanding of the most common types of testing procedures. One method of detecting drugs is urinalysis. The first level of screening is typically a immunoassay test (enzyme, radio, and fluorescent) which is relatively quick, inexpensive, accessible, and adept at weeding out negative samples. It

may, however, have a 25% false positive rate and a 50% false negative rate.

Immunoassays measure antibodies, which lock onto drug metabolites, indicating the presence of enzymes or radioisotopes. These are used primarily in screening for the presence of benzodiazepines, PCP, opiates, barbiturates, hallucinogens, amphetamines, cannabinoids, and cocaine (Stone, 1988; Zeese, 1988; Hogler, 1987).

If the immunoassay reveals a "clean" specimen, no additional testing is assumed to be necessary. However, if drugs are detected, an additional test is necessary to detect the specific drug (type of barbiturate, benzodiazepine, amphetamine) used. The technique used for the secondary test is chromatography (gas or thin-layer). Chromatography is very accurate, but also timely and costly. A third test may be used to confirm the "dirty" specimen. This test is called mass spectrometry, in which a final identity check is completed and measured on the basis of ions. In some cases, additional testing alternatives may be employed, including testing blood, saliva, and hair samples. (Hogler, 1987; Stone, 1988; Zeese, 1988). Unfortunately, due to cost, not all employers who perform drug testing conduct confirmatory/secondary testing procedures (Hogler, 1987; Stone, 1988; Zeese, 1988).

Regardless of the type of test performed, none is absolutely accurate. Human error in testing procedures and interpretation of results is possible, and so applicants may lose their opportunity to join an organization and current employees may lose their jobs needlessly. Thus, in setting up a drug testing policy, a chain of custody which protects the individuals being tested and provides for confirmatory/secondary testing procedures is essential.

For these reasons, not all employers support drug testing as a viable means of ensuring a drug free work place. Those who oppose drug testing argue that it creates a demoralized, unhappy environment, which could actually decrease safety. They suggest that drug testing is merely a gimmick that appears to provide an immediate solution (Hogler, 1987).

Of the companies who do perform drug testing, many do not find it useful. Most employers, for example, test only for illegal drugs, yet fewer than 20% of the individuals seeking help are illegal drug users (Drexler, 1990; Hogler, 1987). Drug testing, in most cases does not screen for alcoholics. Even many substance abuse professionals agree and some even refuse to accept referrals from organizations who perform mandatory drug testing (Hanson, 1986; Hogler, 1987). Hogler (1987) and Hanson (1986) argue that employers are expected to deal with a problem which was not successfully dealt with through law enforcement and education.

Also in question are the reliability of testing, privacy issues, and economics (Horton, 1988). Inaccurate tests can put a person's job at stake, and in some cases may merely reflect a substance which was ingested second-hand through smoke inhalation or an over-the-counter or prescribed medication. Testing procedures themselves may violate one's privacy and integrity. Yet, the companies that manufacture and distribute testing devices attest to high levels of accuracy and gain their financial livelihood on their quick-fix solution (Horton, 1988).

Some employers publish statistics regarding their success in reducing the number of positive test results. Though this decline may be due to an ineffective treatment program,

it may also reflect that the employer raised the level of concentration of drug tested for; an elimination of substance abusers from the work place (terminated); or that the abusers have learned how to cheat and beat the system (Hogler, 1987; Schuster et. al., 1986).

Opponents of drug testing believe that the core issue is not whether an employee is drug free, but whether her/his job performance is impaired (Horton, 1988). Results of urinalysis, for example, merely show the presence of a drug, not necessarily addiction or impairment (Drexler, 1990). It is difficult, and perhaps impossible to determine what levels of drugs result in impairment.

Also in opposition of drug testing are representatives from several organizations. According to Laign (1988) Frank Lisnow, President of the NAADC, insists that the bond among staff must never be broken by testing technology. Michael Ford, President of the National Association of Addictions Treatment providers, and Karst Bestemen, Executive Director of the Alcohol and Drug Problems Association agree (Laign, 1988). According to DuPont (1986), The Legal Action Center, a non-profit law firm, also takes a stand against drug testing, and suggests that most employers who perform testing are disqualifying from employment illegally anyone whose test is positive. A group of Californians has even started a national hotline on drug testing to provide information regarding how long certain drugs stay in the body and how to sabotage test results (Meacham, 1987).

Those in favor of drug testing find the arguments that opponents take ridiculous, and suggest that at a minimum, drug testing should be conducted among people in safety-sensitive jobs. In 1987, leaders of labor organizations representing more than 20 million

union members adopted a policy which opposed random testing, but condoned testing when a worker's behavior gives probable cause to suspect impairment by drugs or alcohol (Zimmerman, 1987). Lee Dogoloff, Executive Director of the American Council for Drug Education and James Fenck, Manager of Exxon's employee health advisory program, agree that drug testing should at least be implemented when there is a high safety risk (McConnell, 1986).

Supporters of testing find it an effective means for improving the safety and productivity of the work place, as well as attacking a nationwide drug problem (Drexler, 1990). Zimmerman (1986) believes that drug abusers can be deterred from further use if they are aware that their work place has a comprehensive testing program, and marginal users can be changed to non-users by the same means.

Proponents further argue that testing can be as close to 100% reliable as science permits, and back-up procedures such as confirmatory tests can be used to ensure accuracy (Hanson, 1986). The National Institute on Drug Abuse (1983) agrees that drug screening can be an effective means to identify employees with drug problems, and should be considered a viable technique within an overall program.

It is estimated that one-fourth of all fortune 500 companies are currently incorporating drug testing, including IBM, Chevron, Rockwell, and Exxon (Stone & Thompson, 1987). Transportation Secretary Burnley believed drug testing would decrease the number of employees using drugs, and in turn, lower the accident rate and increase savings through reduced absenteeism, sick leave, medical insurance, worker's compensation claims, and accidents (Culhane, 1988). According to Elkins (1986), of

testing conducted with the military in the Pacific Northwest, the incidence of positive urine tests dropped 35% over the last two years.

Thus, some organizations have implemented drug testing within the work place, while others have chosen not to implement screening programs. Regardless of their policies, all employers seem to agree that there is a definite need to address the needs of employees with substance abuse problems, and to provide assistance to employees in need. Employee Assistance Programs (EAPs) are a formal way of helping employees identify and deal with their substance abuse problems so that they may be productive members of the work force and society at large. The following section addresses EAPs in detail.

Employee Assistance Programs (EAPs)

Historical definition of EAPs

The development of EAPs was designed as a humanitarian means of identifying employees whose substance abuse problems adversely affect job performance. EAPs are based on three ideas which propose a "win-win" situation for employees and employers: employees are viewed as valuable members of the organization; and so deserving of assistance rather than discipline or termination; and employers retain employees who are capable of becoming more productive and effective (Epstein & Perryman, 1985; U. S. Dept. of Labor, 1989).

According to the U. S. Department of Labor (1989) there are more than 10,000 EAPs operating throughout the country. Approximately 90% of the Fortune 500

companies have established EAPs, but smaller businesses (250 or fewer employees) have been slower to develop such programs (Burke, 1988). EAPs are generally free of charge to the employee, however employees may have to pay for services not provided for in their benefit plan. Organizations that have invested in developing EAPs have achieved savings through lower absenteeism, fewer accidents, decreased medical/insurance benefits, fewer workers compensation claims, fewer grievances, arbitrations, and replacement costs (Roman & Blum, 1989). It is estimated that a savings from \$5 to \$16 is generated for every dollar invested in EAPs (U. S. Dept. of Labor, 1989)

At first, EAPs focussed on substance abuse issues, such as alcoholism, but they have grown to encompass other compulsive disorders such as eating disorders, gambling, and drug abuse. They are geared to helping employees find solutions to their problems, which in turn helps them perform more effectively and safely in the work place. Education and training regarding drug abuse is provided for supervisors. In turn, supervisors provide intervention, assessment, referrals to counseling or treatment, follow up for support. Feedback is then provided to management regarding employee progress (Levine, 1985; National Institute on Drug Abuse, 1987).

The success of programs depends on a joint effort among labor and management (Presnall, 1962; State and Local Govt. Labor-Management Committee, 1988). EAPs may be sponsored through a company, union, or jointly. They may be administered internally or contracted externally; structures range from simple referral services to staffed in-house programs, depending on the needs of a particular organization (Levine, 1985; U. S. Dept. of Labor, 1989).

EAPs are not a new concept; they began in the early 1900s when Macy's Department Store in New York developed a counseling program for employees (State and Local Government Labor-Management Committee, 1988). According to Good (1986) and Bickerton (1988) the aim of today's EAP began in the mid-1930s when Alcoholics Anonymous (AA) began and later when the National Council on Alcoholism made an impact. Shahandeh (1985) traces the beginning of EAPs to the mid 1940s.

Growth in EAPs continued, and in the early 1970s the National Institute on Alcoholism and Alcohol Abuse (NIAAA) was established. In 1972 the NIAAA promised \$50,000 per year, for three years, to states which agreed to hire two people who would work for the establishment of occupational programs, one in the public and private sector each (Bickerton, 1988). This project, along with support of other advocacy groups and self help groups, became the basis for additional EAPs in the 1980s. In this time period, EAPs have expanded to programs which serve both the economic and social interests for employees and employers (Epstein & Perryman, 1985).

Guidelines for development of EAPs

Success of an EAP is dependent upon involvement from all levels of employees, beginning with the development of a formal drug policy statement. A committee representing employees from various constituencies, as well as community resources, can be most effective in developing a policy for an organization (Gam et. al., 1983; McClellan, 1987; Roman & Blum, 1989; State and Local Govt. Labor-Management Committee, 1988). The statement should reflect the goals of the program and describe

the organizations position regarding employee drug abuse and how the EAP can support employees in need (Gam et. al., 1983; McClellan, 1987; Roman & Blum, 1989; State and Local Govt. Labor-Management Committee, 1988). Specifically, a policy should address substance abuse as a disease; support treatment and rehabilitation; encourage employees to seek assistance and ensure confidentiality; and base mandatory referrals on job related performance (Levine, 1985; Roman & Blum, 1989; State and Government Labor-Management Committee, 1988).

Despite the significance of a written policy, Brewer (1988) estimates that a minimum of one-half of organizations do not have a formal substance abuse policy. Those who do often have a policy that is outdated or incomplete and/or is not communicated to the employees.

In addition to a policy statement, a needs assessment is essential. This step is often overlooked due to the myth that employers know what kinds of assistance are necessary; the excuse of a lack of time, money, or expertise to conduct the assessment; or the mistaken belief that another company's/organization's program can be adapted to meet their needs despite the cultural differences in organizations (Balzer & Pargament, 1987). Benefits of needs assessments include an accurate picture of specific organizational problems, an opportunity for employees to take ownership in the program by expressing their opinions, a formal framework for planning, and a basis for evaluation (Balzer & Pargament, 1987).

A variety of strategies and data collections techniques are useful to assess employee needs, including surveys of employee drug use and their concerns and needs. In addition,

information available through community, local, state, and national agencies is useful to understand the scope of the problem and possible approaches to pursue. The information gathered may be used to estimate expected savings as a result of the EAP (Balzer & Pargament, 1987).

An EAP should focus on two primary goals: (a) prevention of drug and alcohol abuse, and (b) intervention with employees who abuse alcohol or other drugs. Prevention activities are essential in an EAP, and are designed to combat the problem before it gets out of control and leads from use to abuse. Prevention activities include education, professional development, alternative activities, and community efforts. Educating non-users may be an equally effective measure in dealing with the problem of substance abuse in the work place (U. S. Dept. of Labor, 1989).

Intervention, occurs when an employee is no longer functioning adequately within the work place, and his/her performance is detrimental to the safety, productivity, and well-being of the organization (US Department of Labor, 1989). At that point, the employer may intervene and demand that the employee be assessed regarding the extent of his/her problem. In some cases, the employee refers himself/herself to the EAP for help. According to Roman and Blum (1989), 47% of substance abusers were referred by supervisors and only 33% entered EAPs on their own.

Help is typically provided through (a) an assessment or interview to determine the individual's specific problem(s); (b) counseling to establish what alternatives are available to provide the employee with help; referrals to treatment and/or rehabilitation; (c) follow-up to note progress and provide further assistance, emphasizing continued

employment; and (d) continuous counseling to help with doubts, fears, and questions (Gam et. al., 1983; Partridge & Reed, 1980; Presnall, 1962; State and Local Government Labor-Management Committee, 1988). Substance abusers may participate in inpatient or outpatient treatment programs, and/or be referred to Alcoholics Anonymous, Narcotics Anonymous, or other support groups as part of EAPs (Partridge & Reed, 1980).

According to Levine (1985), a concerted effort to communicate to all employees the services which are available through the EAP is also necessary. Vehicles for providing detailed information include employee orientation sessions, other staff meetings, brochures, bulletin boards, letters to employees' homes, general memos, payroll stuffers, posters, videotapes, employee handbooks, and word of mouth (Levine, 1985). Public relations efforts may, in fact, lead more substance abusers to refer themselves to the EAP (Levine, 1985).

Finally, the effect of the EAP on the individual worker must be evaluated. Criteria for evaluation include: social adjustment, such as personal relations, physical health, residential stability, and occupational adaptation; employment adjustment as it relates to work performance, absenteeism, earning power, disciplinary action, and accident frequency; and job efficiency, including the quality of work and output (Good, 1986). In addition to the client outcomes, the program outcomes should be evaluated as well.

Evaluations of EAPs have revealed that they are effective. A recent study found that 70% of 17,000 employees who were referred to EAPs for alcoholism were able to return to work and perform satisfactorily (Zimmerman, 1988). According to the State and Local Government Labor-Management Committee (1988), long-established EAPs have

shown that when the disease concept (alcoholism is a disease which can be arrested and treated, but not cured) is implemented and substance abuse is diagnosed and treated properly, 60% to 80% of the employees have returned to fully-productive status in their work places. The employer investment yielded a return of \$3 to \$5 for every dollar spent on EAPs for these employees. Roman and Blum (1989) report similar findings in a study of 128 internally-based EAPs. They found that, on the average, 69% of workers who were diagnosed and treated properly were back on the job with adequate performance 12 months after referral to the EAP. An additional 9% of the workers returned to work with less than satisfactory performance; 10% left the company involuntarily and 7% left voluntarily; and 5% were still in treatment. EAPs are saving millions of dollars and hundreds of lives (Partridge & Reed, 1980).

Successful EAPs

Success of EAPs is illustrated by the following examples. Allis Chalmers reports that its absenteeism attributed to substance abuse dropped from 8% to 3% after initiating an EAP (Shahandeh, 1985). According to Levine (1985), results of a survey at U. S. Tobacco indicate that benefits of their EAP include early recognition of the problem, intervention, and resolution of business and personal problems; retention of valued employees; increased productivity and profits; reduced absenteeism; and improved employee morale.

Western Electric has also effectively reduced costs and helped hundreds of employees through their EAP (Partridge & Reed, 1980). Owens/Corning reported helping over 400 employees and dependents within a four-year period (Partridge & Reed, 1980).

The U. S. Department of Labor (1988) points to the following EAPs as model programs:

1. The Association of Flight Attendants (AFA) has a successful peer referral program, and trains flight attendants as peer helpers. Through extensive training (96 hours) they learn to recognize problem abusers and how to refer them for help. The utilization rate of the EAP was 3.6%, considerably above the one percent rate of the United States Office of Personnel Management.
2. Carpenter Technology Corporation expanded their drug screening program to better identify and refer substance abusers to the EAP. Since then, they have experienced fewer accidents, fewer fitness for duty referrals, and greater work force comfort with increased safety and security.
3. A city EAP for San Diego added to a significant decrease in workers compensation claims. Since 1984 workers compensation claims decreased as utilization of the EAP climbed to 4.6% in 1987.
4. The Employee Assistance of Central Virginia, Inc. is a service center for 14,000 employees in 24 work organizations. In the consortium-type organization (servicing numerous employers in Central Virginia), it is estimated that the average utilization is approximately 5% of the work force.

5. The Hillsborough Area Regional Transit in Tampa, Florida recently received an award from the American Public Transit Association for its improved safety record. The installation of an EAP in 1984 contributed to their success. In a comparison of pre- and post-involvement in the EAP, the number of accidents declined nearly 50%.

6. The Local 32B-J of New York, New York developed a Member Assistance Program (MAP) to respond to increased alcohol problems. The caseload increased to average 450 clients per year, and as a result, expansion of the program is being seriously considered.

7. Peer Plus in Fort Worth, Texas is a totally volunteer and employee-run program. It represents an educational and referral mode of employee assistance managed by the employee volunteers who want to help employees struggling with substance abuse.

8. The Saint Louis Symphony Orchestra was the first orchestra to utilize an EAP. It did so in order to face the negative performances caused in part by drug and alcohol problems. Approximately 12% of the 160 members took advantage of the EAP within the first 18 months of operation. Seventy percent of those who participated believed that the EAP had reached its goal of improvement in job performance.

9. Workers Assistance Program of Texas covers more than 54,000 workers at 72 sites. It provides custom-tailored contracts to each work group, and though it is moving toward self-sufficiency as a non-profit provider, it continues to help any group of workers and their family members, regardless of their ability to pay.

These EAPs represent various employer and employee constituencies, and offer sound ideas for successful assessment, implementation, and evaluation of services. Some

are associated with drug testing, and others are not. Some are federally mandated and others are privately regulated. Each has proven helpful to the employer and employees in addressing substance abuse in the work place. Another significant consideration is the legal liability associated with EAPs and drug testing. Legal liability issues are discussed in the following section.

Legal Considerations of Drug Testing

Drug testing: Controversial legal issues

Drug testing requires achieving a balance of competing interests: employers need to provide safe and productive work places and employees need to maintain their freedom from unreasonable invasions of privacy (McClain, 1990). Thus, drug testing programs raise legal and ethical concerns including accuracy, invasion of privacy, relevance to effectiveness of performance, risk of undue disclosure of results in relation to discrimination, deterrence of participation in rehabilitation programs, and wrongful discharge (Hogler, 1987; McClain, 1990). Rochelle Kaplan (1990) states that new applicant and employee screening techniques can be vulnerable legal issues for employers.

There is a lack of legal precedent concerning drug testing because its use is relatively recent. Lawsuits concerning drug testing may take years to work through the court system, which are further complicated by the fact that employers do not necessarily tell applicants why they were rejected for employment (Kaplan, 1986).

Opponents of drug testing acknowledge employers have a right to maintain a safe and productive work place, but argue that under current laws, mandatory testing of applicants and current employees may be illegal (Legal Action Center, 1989). Fallibility of screening methods could jeopardize 50,000 employees for every million tested. Furthermore, basing employment decisions on test results discriminates against people with disabilities such as drug addiction. Also in question are ethics regarding privacy issues (Legal Action Center, 1989).

Proponents of drug testing, like Evans (1985), believe that drug testing is legal and fair where there is just cause to test, the test is used to ensure safety, and the employee's confidentiality is protected. Evans, New Jersey Division of Alcoholism and Chair of the Individual Rights Section for Alcohol and Drug Law Reform of the American Bar Association, states that test results are held legally valid by courts and arbitrators. He believes it is the employers responsibility to carry through with their right to test employees in order to protect the employer from drug and alcohol related accidents and to help the abuser obtain help for himself/herself.

The lack of legal precedent regarding drug testing means that employers need to consider certain ramifications when considering testing of applicants and current employees. Specific legal considerations regarding drug testing are provided in the following section.

Private employment issues related to drug testing

According to Zeese (1988) the legal issues associated with drug testing are being brought to the forefront at a time when the trend in employment law is leaning toward the reduction in the power of the employer and his or her control over employees' personal lives. Federal, state, and local governments have increasingly asserted themselves, and the previous employment-at-will doctrine has been replaced by numerous theories of wrongful discharge. Common law issues which are being actively pursued by employees include wrongful discharge, privacy actions, defamation actions, negligence, and intentional infliction of emotional distress (Zeese, 1988).

The common law regarding wrongful discharge previously permitted employers to terminate employees "at-will" for any reason or no reason at all. This interpretation has been eliminated in forty states (exceptions include Colorado, Delaware, Florida, Georgia, Iowa, Louisiana, Mississippi, Rhode Island, Utah, and Vermont) and replaced by one of three exceptions to this doctrine: implied covenant, implied contract, and public policy tort (Zeese, 1988). It appears that the Supreme Court's previous tendency toward favoring employees is moving toward a precedent which only interferes with drug testing of job applicants in the most horrendous cases (Kaplan, 1990).

The common law regarding privacy actions includes the common law right to privacy or a violation of the right to privacy provided by state constitution. Infringements may occur when drug testing is an "unwarranted intrusion into an employees sphere of influence" or invades one's privacy in "being forced to expose intimate body parts to a stranger, being forced to urinate on the command of the employer, being compelled to

provide privileged medical information, the disclosure of urine test results to other people, inaccurate testing procedures, surveillance of off-duty conduct, and punishment for off-duty conduct" (Zeese, 1988, p. 4-7). Although this law protects individuals from unreasonable searches, arbitrators have held that an employee's refusal to take a test can be used against the employee (Evans, 1985). Thus, the relevant precedent has established that testing is, indeed a "search," but employees may be obligated to submit to tests which are reasonable under all circumstances (Hogler, 1987).

The common law regarding defamation issues states that the basic action involved is "publication, meaning mere disclosure to a third party of information that lowers one's reputation in the community" (Zeese, 1988, p. 4-10), an exception exists when the employer shares confidential information during an emergency when there is not adequate time to determine the accuracy of the information (Evans, 1985).

The common law regarding negligence involves "a duty, requiring a standard of conduct; a failure to conform to that standard or a breach of the duty; a causal connection between the conduct and the resulting injury, and actual loss or damage" (Zeese, 1988, p. 4-12). Improperly administered or interpreted drug tests may satisfy these elements, and therefore it is essential that the employer may be able to prove that drug testing is a job-related necessity (Kaplan, 1986).

The common law regarding intentional infliction of emotional distress arises when "one who by extreme and outrageous conduct intentionally or recklessly causes severe emotional distress to another" (Zeese, 1988, p. 4-13). Related drug testing issues include

liability for mental distress due to negligence in testing, defamation, or invasion of privacy (Zeese, 1988).

In addition to these common law issues, Zeese (1988) highlights statutory issues including the National Labor Relations Act, The Federal Rehabilitation Act, The Federal Civil Rights Act of 1964, and Unemployment Compensation. The National Labor Relations Act provides for negotiating a drug testing agreement, contractual grievance and arbitration procedures, arbitration decision involving urine testing, and injunctions. Specifically the National Labor Relations Act proves that it is "unfair labor practice for an employer to refuse to bargain collectively with employee representatives over the terms and conditions of employment" (Brewer, 1988; Zeese, 1988, p. 4-14), including drug testing.

The Federal Rehabilitation Act of 1973 protects substance abusers as "handicapped" individuals. The act was designed to protect substance abusers from discrimination in hiring practices as well as to require employers to "make reasonable efforts to accommodate the handicap of that individual" (Zeese, 1988, p. 4-27). Other state statutes and the Federal Civil Rights Act of 1964 also prohibit discrimination, but focus on the bases of race, color, religion, sex, and national origin (Hogler, 1987; Kaplan, 1986; Kaplan, 1989; McClain, 1990; Zeese, 1988). Within these provisions, the employer must provide the same medical and insurance benefits to handicapped employees as any other employee and may not differentiate in salary. Furthermore, the employer may only ask about an individual's handicap with relation to his/her ability to perform the job. The employer may take action against handicapped persons if their current use results in

unsatisfactory performance, or if they do not meet the same expectations or rules of other employees, or they are of danger to themselves (Brewer, 1988).

Another statutory issue is unemployment compensation. The issue with drug testing is whether the employee who tests positively and is terminated is eligible to receive unemployment compensation. Additional related considerations for employers are test reliability and relativity of employment-related discharge (Brewer, 1988; Zeese, 1988).

Public employment issues related to drug testing

Whereas the Fourth Amendment and other constitutional provisions do not apply to private, non-government action, they are of utmost importance for public employees. The Fourth Amendment provides "the right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the person to be seized" (Zeese, 1988, p. 5-2). Drug testing raises two specific questions: (a) is a drug test a "search", and (b) is it "unreasonable" (Brewer, 1988; McClain, 1990; Zeese, 1988).

In addition public employees have a right to due process. Public employees are protected from termination by the due process, of the amendment to the constitution, which provides that the government may not "deprive any person life, liberty, or property, without due process of the law" (Zeese, 1988, p. 5-34). Due process takes the form of procedural and substantive due process. Procedural due process requires "notice and opportunity for hearing appropriate to the nature of the case" (Zeese, 1988, p. 5-36).

and substantive due process "forbids dismissals which are arbitrary and capricious" (Zeese, 1988, p. 5-39). Dismissing an employee for issues related to drug testing are of concern to the employer because such charges may stigmatize the employee (Hogler, 1987; Zeese, 1988).

The Fifth Amendment states that persons have a right to avoid self-incrimination and a right to privacy, thereby protecting public employees against self-incrimination and guaranteeing personal privacy. Drug testing, again, must be considered by the employer with regards to inappropriate disclosure of results and the accuracy of testing procedures (Evans, 1985; Zeese, 1988).

Finally, the Drug Free Workplace Act (The Anti-Drug Abuse Act of 1988) provides regulations covering all federal agencies and prohibits them from illegally manufacturing, distributing, possessing, and using alcohol and other drugs in the work place. Regulations require federal grantees and contractors to certify that they will maintain these regulations, inform employees, establish a drug-free awareness program, notify employees that they must abide by the regulations, report employee drug-related convictions, take appropriate personnel action and make a good faith effort to maintain the regulations (Association of Labor-Management Administrators, 1988; Legal Management Administrators and Consultants Action Center, 1988; Spotlight, 1989). In addition, money for EAP development was provided, along with guidelines for EAPs as a tool to serve anti-drug interests (Association of Labor-Management Administrators and Consultants, 1988).

Though not many court decisions have been established with regard to drug testing, it is evident that various statutes and laws have a direct impact on both private and public employers. The following section provides some considerations for employers who currently implement or are considering implementation of drug testing.

Considerations for employers regarding drug testing

When dealing with substance abuse and drug testing, employers should develop formal, consistent policies and adhere strictly to them (Hogler, 1987). Policies should be based on an employers need for a drug testing program as it relates to the employee's ability to perform the job, the nature of the industry, and the employer's obligation to the public (Brewer, 1988; Kaplan, 1986). Applications should include information regarding the testing procedures, as well as how the results might affect the hiring decision. Advising applicants in advance is most useful (Kaplan, 1986).

Tests should be conducted in a manner which protects the applicant's or employee's dignity and privacy, and a continuous "chain of custody" must be followed as well (Kaplan, 1986; Langlois, 1987). Results should be provided, along with an opportunity to discuss the actions to be followed (Langlois, 1987). Consideration must be given to the confidentiality of results (Kaplan, 1986).

Whenever possible, individuals should have the opportunity to utilize an EAP to help with their substance abuse problems. The EAP should not be used as a shelter, yet must provide individuals with the necessary assessment, referrals, treatment, rehabilitation, and

follow-up so that they may return to the work place as productive members of the organization (Brewer, 1988).

Summary

It is apparent that alcohol and other drugs are prevalent within the work place. In response to the problem, employers have developed drug testing programs and EAPs as means of assessing and intervening within the work place.

Specific factors which influence employer perceptions of EAP components include the size of an organization, the number of employees they hire on an annual basis, and the percentage of male and female hires. The size of an organization has an impact on whether or not employers implement testing programs and on their perceptions of the significance of specific components within EAPs.

Likewise, organizations who hire larger numbers of employees on an annual basis tend to be more likely to test candidates at the pre-employment stage. They also tend to differ in their perceptions of the significance of specific EAP components than their counterparts who hire fewer employees on an annual basis.

Another consideration is an employee's sex. Organizations with more male employees are more apt to test their employees than employers with a larger percentage of female hires. Regardless of the proportions of male and female employees, employers perceive specific EAP components similarly.

Perceptions of EAP components do not seem to be affected by the type of testing performed in an organization. Organizations who pre-test tend to perceive specific EAP

components similarly to those who test current employees. In addition, there is a dependent relationship among testing policies and EAPs. Employers who pre-test are more likely to test current employees and have an EAP.

Statement of Hypotheses

Based on those factors discussed in the preceding summary, the following research hypotheses were developed and tested:

1. Hypothesis: There are differences in the perceptions of the importance of twenty EAP components with regard to selected independent variables including (a) number of employees; (b) employees hired during the last recruitment season (1989-1990); (c) percentage of new female hires.

2. Hypothesis: There is a difference in the perceptions of the importance of twenty EAP components in companies with differing testing policies (testing for both alcohol and other drugs; only alcohol or other drugs; neither alcohol nor other drugs) with regard to selected independent variables including (a) pre-employment alcohol and/or other drug testing; and (b) current employee alcohol and/or other drug testing.

3. Hypothesis: The testing policies for current employees are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for current employees.

CHAPTER III. METHODOLOGY

The purpose of this study was to explore differences in attitudes among employers with regards to twenty EAP components specifically geared toward alcohol and drug abuse; to explore differences in attitudes among employers who perform pre-employment drug testing and drug testing within the work place; and to identify some characteristics that are conducive to successful EAPs. This chapter details the survey procedures, subjects of the study, and statistical and descriptive analysis procedures.

Survey Procedures

This study was based on a review of literature and previous research findings focussing on drug testing and the use of EAPs geared to alcohol and/or other drug abusive employees. A survey was determined to be the most practical and economical means of gathering data from a large number of employers. The survey was developed in accordance with Borg and Gall's (1989) seven-step questionnaire survey process: defining objectives, selecting a sample, writing items, constructing the questionnaire, pretesting, preparing a letter of transmittal, and sending out the questionnaire and follow-ups. Appendix A contains a sample of the survey items, Appendix B a copy of the letter of transmittal, Appendix C, a sample of the initial follow-up postcard, and Appendix D, a sample of the final reminder postcard.

The 48 survey questions were based on a review of the literature. Basic demographic information was deemed necessary to determine the parameters of the population studied. In addition, Schuster et. al. (1986) recommended further study to

determine the efficacy of testing programs. Other experts agree and provide particular types of testing procedures to be studied (Hogler, 1987; Stone & Thompson, 1987; Zeese, 1988). And, based on the need for programs and services which meet the needs of employers and employees who struggle with substance abuse in the work place, treatment and rehabilitation; encouragement to seek assistance; confidentiality; and referral procedures related to job performance were investigated as well (Levine, 1985; Roman & Blum, 1989; State and Government Labor-Management Committee, 1988).

The Demographic Information Section requested information on the total number of employees (question 1), location of employer home and branch offices (questions 2-3), number and sex of employees hired during previous recruitment year (questions 4-5).

The next section of the questionnaire encompassed two sub-sections: (a) Pre-employment Alcohol and/or Drug Testing (questions 6-20) and (b) Alcohol and/or Drug Testing for Current Employees (questions 21-35). Both sub-sections asked subjects to check appropriate responses from yes/no or multiple listing questions regarding employer policies and procedures related to alcohol and other drugs (questions 6-13, 15-17, 20, 21-28, 30-32, and 35). The remaining questions (questions 14, 18-19, 29, and 33-34) asked for open-ended responses to options stated in the question.

The final section, Employee Assistance Programs, requested additional information regarding employer policies and procedures. The first nine questions (questions 36-44) were yes/no or multiple listings; the next question (questions 45) requested responses to 20 statements which were formatted in a Likert scale with five possible choices ranging

from low to high; and the final questions (questions 46-48) were open-ended in nature to solicit additional information which would be useful for the research project.

The survey was structured so that subjects would begin with questions which were easier to answer. More specific, detailed questions were asked in the following sections and sub-sections. The sub-sections were structured identically, asking the same questions two times: once for pre-employment testing and a second time for current employee testing. Those questions which posed multiple listings (questions 10-12, 15-17, 20, 25-27, 30-32, 35, and 43-44) also provided subjects with an open-ended "other" category which enabled them to provide additional information if applicable.

A committee of experts met and discussed the survey, and an employer expert was consulted to determine necessary changes. Revisions and additions were completed prior to the initial mailing.

The initial mailing occurred on August 10, 1990, and included a letter of transmittal (Appendix B) which explained the nature of the study and requested employer participation. Also included was a copy of the survey, with instructions requesting completion and return in the self-addressed and stamped envelope. Two follow-up postcards (Appendix C and Appendix D), mailed on September 12 and October 4. The survey and research project itself were approved by the ISU Committee on the Use of Human Subjects in Research.

Subjects

Study participants included recruiters who interviewed prospective employees through the placement operations servicing students in business and liberal arts and sciences at ISU, U of I, and UNI during the 1989-1990 academic year (N=458). Recruiters recruited at one, two, or all three of the institutions, but only one survey was sent to each employer to avoid duplication. Surveys were coded numerically to ensure confidentiality and the coding key was destroyed following completion of the final mailing.

One hundred-thirty-two employers responded to the survey. In some cases employers did not respond to the entire survey because their organization did not implement all three types of programs: pre-employment testing; current employee testing; and EAPs specifically geared to alcohol and/or other drugs. Thus, some of the tables represent smaller numbers.

The relatively low rate of return (29%) is likely due to the sensitivity of the topic. Some of the respondents expressed written concern regarding the researcher's responsibility to maintain their confidentiality and others crossed out their code number to ensure confidentiality of their responses. After numerous follow-ups with the respondents, several respondents indicated they were becoming sensitive to being asked to provide information in this area. Thus, it was not possible to determine how respondents differed from non-respondents in this specific study. The reader is therefore cautioned that the respondents in this study may be unique and so results cannot be generalized to other populations.

Data Analysis

Data preparation included coding each survey in accordance with a code book which specified the variable name, column location, variable label, range of values and missing value for each item. Coding errors were corrected in preparation for statistical analysis.

Using the data gathered through the survey, statistics were computed to determine frequencies, standard deviations, and variances. The SPSSX procedures of frequencies, oneway, and crosstabs were applied to perform one-way analyses of variance (ANOVA) and Chi-Square to examine differences among the groups (SPSS Inc., 1983).

Data from open-ended questions were analyzed and categorized to further highlight characteristics of employers who perform drug testing and have EAPS in place. responses to all open ended questions were typed and analyzed to determine categories of responses. Frequencies of categories of responses were noted and discussed, but specific responses were not noted in order to protect employer confidentiality.

Dependent Variables

In this study the dependent variables include the 20 statements regarding the employers' perception of EAP components related to alcohol and/or other drugs (see Appendix A, pages 141-142): 1=low and 5=high.

Table 1A presents a list of dependent variables and corresponding survey item numbers. Each statement represents one item in response to question 45, which asked

Table 1A. Statements as they relate to the employer's EAP related to alcohol and/or other drugs.

Item Statement	Number of Responses	Mean	Standard Deviation
1. We have well-developed written policies and procedures concerning employee utilization of the EAP.	84	4.27	0.91
2. We support employee participation in twelve step programs and aftercare programs.	80	4.40	0.94
3. We feel that the responsibility for dealing with the problem lies solely with employee, independent of the employer.	84	2.36	1.10
4. We provide paid leave from work while an employee completes inpatient treatment.	81	4.00	1.28
5. We believe that self referral is necessary for success in dealing with the problem.	81	3.54	1.26
6. We support total employee confidentiality concerning utilization of the EAP.	83	4.63	0.85
7. We believe that an employee's participation in support groups is the most effective rehabilitative approach.	81	3.77	0.90
8. We believe in voluntary EAP participation and avoid mandatory referral.	83	3.37	1.07
9. We support a therapy related approach to substance abuse problems.	75	3.81	0.91
10. We believe informal procedures allow for feasibility and freedom for employees.	71	2.87	1.13

scale for rating: 1=lowest; 5=highest

Table 1A (continued)

11. We believe that an employee's financial contribution is crucial to committed participation in the EAP.	78	2.36	1.17
12. We believe that there is a definite beginning and end for the employee dealing with the problem.	77	2.30	1.17
13. We believe that strong support and endorsement from top management is essential to a successful EAP.	83	4.57	0.74
14. We support paid leave from work while an employee participates in outpatient treatment.	76	3.41	1.43
15. We believe that company referral is necessary for success in dealing with the problem.	77	2.65	1.20
16. We believe that individual counseling is the most effective rehabilitative approach to substance abuse problems.	88	3.02	1.01
17. We support involvement from supervisors and "significant others" in dealing with those employees with substance abuse problems.	78	3.76	1.08
18. We support mandatory employee involvement.	75	3.00	1.17
19. We provide total financial support for employee participation in rehabilitative substance abuse programs.	76	3.09	1.33
20. We believe that participation in an educational program is the most effective rehabilitative approach to substance abuse problems.	79	3.17	0.95

respondents to rate 20 statements regarding their Employee Assistance Programs (EAPs). Ratings ranged from low (1) to high (5).

Table 1B summarizes the dependent variables. Employers rated the following items ≥ 4 (on a scale of 1 to 5, with 5 being the highest rating of importance): 1) well developed policies; 2) employee participation in twelve step and aftercare programs; 4) providing paid leave during inpatient treatment; 6) support of total employee confidentiality; and 13) strong support and endorsement from top management. Conversely employers rated other items < 3 : 3) responsibility for dealing with public is solely employees; 10) informal procedures; 11) employees financial contribution crucial; 12) definite beginning and end to the problem; and 15) company referral necessary.

Independent Variables

In this study the independent variables are:

1. Total number of employees: 1= < 50 ; 2=50-100; 3=101-250; 4=251-500; 5=501-1,000; and 6= $>1,000$.
2. Employees hired last recruitment season (1989-1990): 1= <10 ; 2=11-20; 3=21-30; 4=31-40; 5=41-50; and 6= >50 .
3. Percentage new female hires: 1= $<20\%$; 2=21-30%; 3=31-40%; 4=41-50%; and 5= $>50\%$.
4. Pre-employment alcohol and/or other drug testing group: 1=employer tested for both alcohol and other drugs; 2=employer tested for alcohol only; 3=employer tested for other drugs only; and 4=employer tested for neither alcohol or other drugs.

Table 1B. Statements as they relate to the employer's EAP related to alcohol and/or other drugs.

Item	Statement	Number of responses	Mean	Standard Deviation
1.	We have well-developed written policies and procedures concerning employee utilization of the EAP.	84	4.27	0.91
2.	We support employee participation in twelve step programs and aftercare programs.	80	4.40	0.94
4.	We provide paid leave from work while an employee completes inpatient treatment.	81	4.00	1.28
6.	We support total employee confidentiality concerning utilization of the EAP.	83	4.63	0.85
13.	We believe that strong support and endorsement from top management is essential to a successful EAP.	83	4.57	0.74
3.	We feel that the responsibility for dealing with the problem lies solely with employee, independent of the employer.	84	2.36	1.10
10.	We believe informal procedures allow for feasibility and freedom for employees.	71	2.87	1.13
11.	We believe that an employee's financial contribution is crucial to committed participation in the EAP.	78	2.36	1.17
12.	We believe that there is a definite beginning and end for the employee dealing with the problem.	77	2.30	1.17
15.	We believe that company referral is necessary for success in dealing with the problem.	77	2.65	1.20
scale for rating: 1=lowest; 5=highest				

5. Current employment alcohol and/or other testing group: 1=employer tested for both alcohol and other drugs; 2=employer tested for alcohol only; 3=employer tested for other drugs only; and 4=employer tested for neither alcohol or other drugs.

6. Employee Assistance Program (EAP)group: 1=employer provided EAP for both alcohol and other drug related problems; 2=employer provided EAP for alcohol only related problems; 3=employer provided EAP for other drugs only related problems; and 4=employer did not provide EAP for either alcohol or other drug related problems.

Total number of employees

Table 2 presents data on the total number of employees within the organizations. It appears that a majority of the employers (57.6%) were relatively large employers, employing more than 1,000 workers. The remainder of the employers were small in size (34.2%), employing 1 to 500 workers or medium size (8.3%), employing 501-1000 workers.

Employees hired last recruitment season

Table 3 presents data on the number of employees hired during the last recruitment season (1989-1990). It appears that a majority of the employers hired either very few employees (37.8% fewer than 10) or a great number of employees (33.9% more than 51). The remaining employers (28.4%) hire between 11 and 50 employees.

Table 2. Total number of employers within the organization.

Number of employees	Number	Valid %
<50	22	16.7
50-100	7	5.3
101-250	8	6.1
251-500	8	6.1
501-1000	11	8.3
>1000	76	57.6
<hr/>		
Total	132	100.0

Table 3. Employees hired last recruitment season.

Number of employees	Number	Valid %
<10	48	37.8
11-20	18	14.2
21-31	9	7.1
31-40	7	5.5
41-50	2	1.6
>51	43	33.9

Percentage of women hired

Table 4 presents data on the percentage of new female hires within the companies.

It appears that most employers hired fewer females than males. Only 18.8 % hired more females than males.

Table 4. Percentage new female hires.

Number of female hires	Number	Valid %
<20	34	29.1
21-30	24	20.5
31-40	13	11.1
41-50	24	20.5
>50	22	18.8

Groups: pre-employment testing; current employee testing; EAPs

Table 5 presents a breakdown of companies by groupings: pre-employment testing policies, testing policies of current employees, and EAP policies with regards to alcohol and/or other drugs.

To summarize the demographic variables the following points can be noted. More than half of the employers (57.6%) represented organizations with more than 1,000 employees. The employers tended to hire either very few employees (<10) or a large number of employees (>51). Of those employers, approximately one-third (29.1%) hired fewer than 20 females last year. The employers who test tend to test for both alcohol and other drugs or other drugs only, not alcohol only. Employers who pre-test tend to test current employees as well, and EAPs primarily are geared toward alcohol and other drugs.

Thus, the employer profile indicates a group of employers, large in size, who hire varying numbers of employees (primarily male), tend to test employees for both alcohol

Table 5. Breakdown of companies by alcohol and/or other drug policies.

Type(s) of testing	Pre-employment Group		Current employees Group		EAPs Group	
	N	Valid %	N	Valid %	N	Valid %
Both alcohol and other drugs	28	21.7	26	20.5	87	66.4
Alcohol only	0	----	0	----	1	.8
Other drugs	30	23.3	12	9.4	0	----
Neither alcohol nor drugs	71	55.0	89	70.1	43	32.8

and other drugs or other drugs only, and provide their employees with an EAP geared toward alcohol and other drugs.

CHAPTER IV. RESULTS

Introduction

The purpose of this study was to explore differences among employers perceptions of twenty EAP components specifically geared toward alcohol and drug abuse; to explore differences among pre-employment drug testing and drug testing within the work place; and to identify some characteristics that are conducive to successful EAPs. The following hypotheses, based on the literature review and previous related studies (discussed in Chapter II) guided the study:

1. There are differences in the perceptions of twenty EAP components with regard to selected independent variables including (a) number of employees; (b) employees hired last recruitment season (1989-1990); (c) percentage new female hires.

2. There is a difference in the perceptions of twenty EAP components in companies with differing testing policies (companies which perform both alcohol and other drugs; only alcohol or other drugs; neither alcohol or other drugs) with regard to selected independent variables including (a) pre-employment alcohol and/or other drug testing; (b) current employee alcohol and/or other drug testing.

3. The testing policies for current employees are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for current employees.

Results of the data analyses are presented in the order of the hypotheses. The hypotheses were based on examination of differences among three or more groups, and

therefore one-way analysis of variance (ANOVA) and Chi-square procedures were determined to be the most appropriate statistical measures (Warren, Kemis, Abou-Dagga, 1991). When ANOVA results yielded significant differences among the groups, contrast tests were conducted to determine specific differences. In addition, responses to open-ended questions were analyzed and categorized to provide a profile of the employers. Frequencies of categories of responses were noted and described, but specific responses were not noted in order to maintain employer confidentiality.

The Sample

The total sample for this study (described in Chapter III) was 458 recruiters who interviewed prospective employees through the placement operations servicing students in business and liberal arts and sciences at ISU, U of I, and/or UNI during the 1989-1990 academic year. One hundred thirty two employers responded to the survey; employers responded only to those sections which reflected the types of testing and EAPs implemented within their organizations.

Table 6 presents frequencies of the sample in terms of how those employers who perform pre-employment testing compare with employers who perform testing among current employees with regards to specific survey items. Corresponding numbers to survey questions and coding information are provided as well. Employers were requested to answer identical questions about pre-employment and current employee practices.

Employers also responded to items with regard to their current EAP practices. Table 7 describes the sample as it relates to EAP practices.

Table 6. Comparison of pre-employment and current employee practices by type of testing.

Survey Item (pre) (current)	Type of Pre-employment Testing		Type of Current Employee Testing	
	Alcohol (N=29*)	Other drugs (N=61*)	Alcohol (N=30*)	Other drugs (N=43*)
Required by law to test (7) (22)				
yes-1	5	17	10	19
no-0	22	41	16	20
no response-9	2	3	4	4
Tests mandatory (8) (23)				
yes -1	25	55	22	31
no-0	3	4	4	7
no response-9	1	2	4	5
Tests random (9) (24)				
yes-1	4	10	11	16
no-0	24	49	15	24
no response-9	1	2	4	3
Who administers test(s) (10) (25)				
co employees-1	5	15	10	12
outside contractor-2	15	35	15	22
other-3	5	8	2	6
no response-9	4	3	3	3
Where tests analyzed (11) (26)				
company facilities-1	3	2	3	1
outside contractor-2	18	50	21	36
other-3	4	7	3	3
no response-9	4	2	3	3

*These numbers include those who did specific testing and those who did not respond to present testing (3 individuals). For example, the 61 for other drugs represents the 28 who did both alcohol and other drugs, the 30 who did only other drugs and the 3 no responses.

Table 6 (continued)

How candidate/employee informed regarding test (12) (27) ^b				
group meeting	2	3	11	14
individual meeting	15	29	20	24
written guidelines	16	41	19	31
other	4	12	3	4
no response	3	3	3	2
If candidate/employee refuses test, still eligible for employment (13) (28) ^c				
yes-1	2	2	10	10
no-0	56	56	30	30
no response-9	3	3	3	3
Types of testing methods utilized (15) (30)--may answer yes (1), no (0), or no response (9) to all ^c				
Immunoassay	32	32	27	27
EMIT	33	33	24	24
RIA	1	1	1	1
FPIA	3	3	1	1
EZ-Screen	0	0	0	0
Thin Layer Chromatography	1	1	1	1
Color or Spot Tests	1	1	0	0
Gas Chromatography	38	38	27	27
High Performance Liquid Chromatography	0	0	0	0
Mass Spectrometry	36	36	28	28
Other	4	4	2	2
no response	3	3	3	3

^bRespondents may have answered yes (1), no (0) or no response (9) to each item within the question.

^cRespondents were asked to answer the question as it related to alcohol and/or other drugs collectively, not specifically for alcohol and specifically for other drugs.

Table 6 (continued)

Biological specimens (16) (31)^b				
Urine	21	57	15	39
Blood	7	1	15	4
Breath	6	0	9	1
Saliva	1	0	1	0
Hair	---	1	---	0
Other	0	0	0	0
no response	1	3	3	3
Substances screen for (17) (32)^b				
Alcohol	21	21	21	21
Amphetamines	54	54	38	38
Barbiturates	51	51	35	35
Cocaine	57	57	39	39
Danon	8	8	6	6
Marijuana	55	55	38	38
Methadone	31	31	20	20
Methaqualone	30	30	21	21
Opiates	53	53	39	39
Valium	24	24	19	19
Other	18	18	14	14
no response	2	2	7	7
Mean(s) utilized to inform candidate of test results (20) 35)^b				
None-results confidential				
	4	10	0	1
Letter/memo	6	18	8	12
Personal meeting	8	14	23	35
Telephone conversation				
	15	34	9	13
Other	2	4	3	4
no response	1	3	3	3

Table 7. Employee Assistance Program practices.

Survey Item	Alcohol (N=88)	Other drugs (N=87)
Length of EAP existence (37)		
<2 years-1	13	15
3-5 years-2	25	27
6-8 years-3	14	11
>8 years-4	32	29
no response-9	4	6
Who provides EAP services (38)^a		
company employees-1	7	7
outside contractor-2	60	60
both-3	21	21
no response-9	0	0
Who absorbs EAP cost (39)		
100% employer-1	60	60
100% employee-2	23	24
co-contribution-3	0	0
no response-9	5	4
Did EAP begin after drug testing (40)		
yes-1	7	9
no-0	47	45
no testing-2	2	2
no response-9	7	8
Number of employees participating in EAP (41)		
<10-1	24	21
11-20-2	4	7
21-30-3	4	6
31-40-4	2	18
41-50-5	23	0
>50-6	31	36
no response-9		

^aRespondents were asked to answer the question as it related to alcohol and/or other drugs collectively, not specifically for alcohol and specifically for other drugs.

Table 7 (continued)

Percentage of males and females (42)		
Males		
<20%-1	6	6
21-30%-2	1	0
31-40%-3	3	2
41-50%-4	1	1
51-75%-5	5	4
76-100%-6	7	7
no response-9	65	68
Females		
<20%-1	15	13
21-30%-2	4	4
31-40%-3	1	1
41-50%-4	3	2
51-75%-5	1	2
76-100%-6	0	0
no response-9	64	66

Results in Terms of Hypotheses

Table 1 in Chapter III listed dependent variables and corresponding survey items.

Results are presented here in terms of dependent variables as measured by responses to survey items. One-way analysis of variance (ANOVA) and Chi-square procedures were used to determine significant differences among groups. Contrast tests, using the Scheffe multiple range tests, were also conducted to identify specific significant differences between the groups at the .05 level of significance.

Hypothesis I: Comparison of perceptions of EAP components perceptions by total number of employees

While comparing the number of employees within an organization to employer responses to specific survey items, it appeared that the employers disagreed in their perceptions of the significance of EAP components. Specifically, employers of various sizes differed in their perceptions of the need for well developed policies (item 1).

As indicated in Table 8, the analysis of variance procedure conducted regarding the significance of well developed EAP policies (item 1) pointed to significant differences among the groups with a significant overall F test ($F=4.26$, $p < .01$). The contrast t-test was not statistically significant for the contrast of those employers with 251 or more employees versus those with fewer than 251 employees.

For comparison of pairs of means, the Scheffe procedure, which is very conservative, was used to test the differences in pairs. None of the tests for pairs for means was significant. However the small number of employers in some of the groups would influence the tests for statistical difference among pairs of means for the groups. Also the tests for pairs and the contrast t-test examined specific comparisons and not all possible comparisons. Thus, based on results of the ANOVA, the null hypothesis that there are no significant differences in the perception of importance of EAP components with regard to the total number of employees was rejected; there is evidence to support the research hypothesis that the number of employees is related to perceptions of the importance of EAP components.

Table 8. Comparison of ratings of 20 EAP items by total number of employees.

Item	Number	Mean	S.D.	f Ratio	Contrast t Values
Item 1. Well-developed written policies				4.26**	0.53
<50	5	4.00	1.00		
50-100	3	3.33	0.58		
101-250	5	3.80	1.10		
251-500	4	3.25	1.71		
501-1000	10	3.80	1.03		
>1000	57	4.54	0.68		
Item 2. Support of 12-step program participation				1.44	-0.59
<50	5	4.60	0.89		
50-100	3	4.33	0.58		
101-250	4	3.75	1.50		
251-500	2	3.50	0.71		
501-1000	10	4.00	1.15		
>1000	56	4.54	0.85		
Item 3. Responsibility of employee to deal with the problem				0.82	1.02
<50	5	2.00	1.73		
50-100	3	2.67	1.54		
101-250	4	1.50	0.58		
251-500	4	2.75	0.96		
501-1000	10	2.20	1.14		
>1000	58	2.43	1.08		
Item 4. Providing paid leave for treatment				0.71	-0.20
<50	5	3.20	1.30		
50-100	3	4.00	1.00		
101-250	5	4.40	0.55		
251-505	3	3.33	2.08		
501-1000	10	3.90	1.37		
>1000	55	4.09	1.28		

scale for rating: 1=<50; 2=50-100; 3=101-250; 4=251-500; 5=501-1000; 6=>1000

**significance at the .01 level

Table 8 (continued)

Item 5. Self referral essential for success				0.72	-0.90
<50	5	4.40	0.89		
50-100	3	3.33	2.08		
101-250	4	4.00	2.00		
251-500	3	3.33	0.58		
501-1000	10	3.70	0.82		
>1000	56	3.43	1.28		
Item 6. Support of total confidentiality				0.30	-0.94
<50	5	4.80	0.45		
50-100	3	4.67	0.58		
101-250	5	5.00	0.00		
251-500	4	4.50	1.00		
501-1000	10	4.50	0.85		
>1000	56	4.61	0.93		
Item 7. Support groups as most effective rehabilitation				0.90	1.24
<50	5	4.00	0.71		
50-100	3	3.00	0.00		
101-250	4	3.50	1.00		
251-500	3	4.33	1.15		
501-1000	10	3.60	0.70		
>1000	56	3.80	0.94		
Item 8. Voluntary EAP participation				1.51	-0.92
<50	5	4.40	0.55		
50-100	3	3.00	1.00		
101-250	5	3.60	0.89		
251-500	3	3.00	1.00		
501-1000	10	3.70	1.06		
>1000	57	3.25	1.09		

Table 8 (continued)

Item 9. Support of therapy approach				1.22	-1.04
<50	5	4.20	0.84		
50-100	3	3.33	0.58		
101-250	5	3.80	0.84		
251-500	2	2.50	0.71		
501-1000	9	3.89	0.78		
>1000	51	3.84	0.95		
Item 10. Support of informal policies				1.02	-0.13
<50	4	3.75	0.96		
50-100	3	3.00	0.00		
101-250	4	2.50	0.58		
251-500	2	3.00	0.00		
501-1000	9	3.33	1.12		
>1000	49	2.73	1.20		
Item 11. Employee's financial contribution crucial				0.77	-0.79
<50	5	3.00	1.58		
50-100	3	2.67	0.58		
101-250	4	2.00	0.82		
251-500	3	1.67	0.58		
501-1000	9	2.67	1.12		
>1000	54	2.30	1.21		
Item 12. A beginning and end to employee's problem				1.40	-1.94
<50	4	2.75	0.96		
50-100	3	3.00	1.00		
101-250	4	3.50	1.00		
251-500	3	2.33	1.53		
501-1000	9	2.22	1.30		
>1000	54	2.15	1.14		

Table 8 (continued)

Item 13. Need for top management endorsement				0.58	-0.34
<50	5	4.60	0.55		
50-100	3	4.33	1.15		
101-250	5	4.60	0.89		
251-500	4	4.00	1.15		
501-1000	9	4.67	0.50		
>1000	57	4.60	0.73		
Item 14. Providing paid leave for outpatient treatment				0.43	0.37
<50	5	3.00	1.22		
50-100	3	3.00	1.00		
101-250	5	4.00	1.00		
251-500	2	3.50	2.12		
501-1000	9	3.78	1.48		
>1000	52	3.35	1.49		
Item 15. Necessity of a company referral				1.10	1.70
<50	4	2.25	1.26		
50-100	3	2.67	0.58		
101-250	4	2.50	1.29		
251-500	2	4.50	0.71		
501-1000	9	2.78	1.09		
>1000	55	2.60	1.23		
Item 16. Individual counseling as most effective approach				0.81	0.65
<50	5	2.60	1.14		
50-100	3	3.00	0.00		
101-250	4	3.50	0.58		
251-500	2	3.50	2.12		
501-1000	9	3.44	0.73		
>1000	54	2.94	1.05		

Table 8 (continued)

Item 17. Involvement from significant others and supervisors					
				0.57	0.70
<50	5	3.40	0.89		
50-100	3	3.33	0.58		
101-250	4	4.00	1.15		
251-500	3	4.33	1.15		
501-1000	9	3.44	1.01		
>1000	54	3.81	1.13		
Item 18. Support of mandatory involvement					
				0.56	0.51
<50	5	2.40	1.14		
50-100	3	3.00	0.00		
101-250	4	2.50	1.00		
251-500	2	2.50	0.71		
501-1000	9	3.00	0.71		
>1000	52	3.12	1.29		
Item 19. Providing total financial support					
				0.95	1.42
<50	4	2.50	0.58		
50-100	3	2.33	0.58		
101-250	5	3.60	0.89		
251-500	2	4.50	0.71		
501-1000	9	3.11	1.27		
>1000	53	3.08	1.43		
Item 20. Participation in educational programs as most effective rehabilitation					
				1.80	1.43
<50	4	2.75	0.96		
50-100	3	3.00	0.00		
101-250	4	3.75	0.50		
251-500	2	4.50	0.71		
501-1000	9	3.56	0.53		
>1000	57	3.05	1.01		

Hypothesis I: Comparison of perception of EAP components by number of employees hired

While comparing the number of employees hired during the 1989-1990 recruitment season to employer responses to specific survey items, it appears that the employers had dissimilar perceptions of the significance of EAP components with regard to survey items. Specifically, employers differed in their perceptions of the need for well-developed policies (item 1); support groups as the most effective means of rehabilitation (item 7); and mandatory employee involvement (item 18).

As indicated in Table 9, the analysis of variance procedure pointed to significant differences among the groups with a significant overall F test with regard to item 1, well developed employer policies ($F=5.29$, $p<.01$). A contrast t-test was used to examine the difference among those employers hiring fewer than 50 employees versus those hiring 50 or more. Results of the contrast-t revealed that the rating of the importance of well developed policies was statistically significant between those employers who hired fewer than 51 employees during the 1989 recruitment season versus employers who hired more than 50 employees ($t=7.93$, $p<.01$).

The Scheffe test also supports the results found by the overall F and contrast-t. Companies with fewer than 10 new hires appear to have less well developed policies than do organizations with 11-20 new hires (3.86 versus 4.90); companies with fewer than 10 new hires also appear to have less well developed policies than do organizations with more than 50 hires (3.86 versus 4.58). There were no differences with the 21-40 new hires and the other groups. Thus, based on the statistical analyses, the null hypothesis

Table 9. Comparison of ratings of 20 EAP items by number of employees hired during 1989-1990 recruitment season.

Item	Number	Mean	S.D.	f Ratio	Contrast t Values
Item 1. Well-developed written policies				5.28**	7.93**
<10	22	3.86	1.04		
11-20	10	4.90	0.32		
21-30	8	4.13	0.83		
31-40	6	3.67	1.21		
>50	36	4.58	0.60		
Item 2. Support of 12-step program participation				0.58	5.39**
<10	20	4.20	0.95		
11-20	10	4.40	1.26		
21-30	6	4.50	0.84		
31-40	6	4.17	1.33		
>50	36	4.56	0.77		
Item 3. Responsibility of employee to deal with the problem				1.31	4.12**
<10	22	2.32	1.17		
11-20	10	2.00	0.94		
21-30	7	2.00	1.00		
31-40	6	1.83	1.17		
>50	37	2.62	1.11		
Item 4. Providing paid leave for treatment				1.50	4.76**
<10	21	3.62	1.43		
11-20	10	4.20	0.92		
21-30	8	3.88	1.36		
31-40	5	3.20	1.79		
>50	36	4.28	1.14		

scale for rating: 1=<10; 2=11-20; 3=21-30; 4=31-40; 5=41-50; 6=>50
there were no respondents in category rating 5 (41-50)

* significance at the .05 level

** significance at the .01 level

Table 9 (continued)

Item 5. Self referral essential for success				1.33	1.63
<10	21	3.81	1.08		
11-20	10	4.00	1.15		
21-30	7	3.00	1.41		
31-40	6	3.83	1.60		
>50	35	3.37	1.29		
Item 6. Support of total confidentiality				0.33	5.80**
<10	23	4.70	0.64		
11-20	10	4.50	0.71		
21-30	8	4.63	0.74		
31-40	6	4.33	1.21		
>50	34	4.71	0.97		
Item 7. Support groups as most effective rehabilitation				2.72*	4.68**
<10	21	3.86	0.85		
11-20	9	2.89	1.05		
21-30	7	3.86	0.69		
31-40	6	4.17	0.75		
>50	36	3.83	0.88		
Item 8. Voluntary EAP participation				1.11	1.85
<10	21	3.76	1.04		
11-20	9	3.56	0.73		
21-30	8	3.25	0.89		
31-40	6	3.33	1.21		
>50	37	3.19	1.10		
Item 9. Support of therapy approach				0.81	3.73**
<10	21	3.81	0.87		
11-20	10	3.60	1.08		
21-30	7	4.29	0.49		
31-40	3	3.33	0.58		
>50	32	3.81	0.97		

Table 9 (continued)

Item 10. Support of informal policies				2.12	3.34**
<10	20	3.20	0.89		
11-20	9	2.00	0.87		
21-30	6	2.67	1.37		
31-40	4	2.75	1.50		
>50	30	2.97	1.10		
Item 11. Employee's financial contribution crucial				0.82	0.31
<10	21	2.33	1.15		
11-20	9	2.44	1.13		
21-30	7	2.57	0.98		
31-40	4	3.25	1.71		
>50	35	2.20	1.16		
Item 12. A beginning and end to employee's problem				6.75	2.97**
<10	20	2.15	1.04		
11-20	9	2.00	1.32		
21-30	7	2.57	0.79		
31-40	4	1.75	0.96		
>50	35	2.49	1.29		
Item 13. Need for top management endorsement				1.11	5.83**
<10	23	4.48	0.73		
11-20	9	4.89	0.33		
21-30	8	4.63	0.74		
31-40	4	5.00	0.00		
>50	37	4.59	0.60		
Item 14. Providing paid leave for outpatient treatment				0.65	2.87**
<10	21	3.14	1.39		
11-20	9	3.33	1.66		
21-30	7	3.86	1.57		
31-40	4	2.75	1.71		
>50	34	3.56	1.37		

Table 9 (continued)

Item 15. Necessity of a company referral				0.75	2.69**
<10	20	2.70	1.08		
11-20	9	2.00	1.00		
21-30	6	2.83	1.17		
31-40	4	2.50	1.29		
>50	36	2.75	1.34		
Item 16. Individual counseling as most effective approach				0.67	3.60**
<10	22	3.05	1.09		
11-20	9	3.11	0.33		
21-30	6	2.83	0.98		
31-40	4	2.25	0.96		
>50	34	3.09	1.11		
Item 17. Involvement from significant others and supervisors				0.82	3.06**
<10	21	3.71	0.96		
11-20	10	3.70	1.06		
21-30	7	3.29	1.50		
31-40	4	4.50	0.58		
>50	34	3.79	1.12		
Item 18. Support of mandatory involvement				3.08	3.40**
<10	21	2.67	0.91		
11-20	10	2.10	0.88		
21-30	6	3.33	1.37		
31-40	3	3.33	1.53		
>50	33	3.33	1.19		
Item 19. Providing total financial support				2.29	4.70**
<10	20	2.95	1.10		
11-20	10	2.80	1.48		
21-30	7	3.00	1.53		
31-40	4	1.50	1.00		
>50	33	3.42	1.30		

Table 9 (continued)

Item 20. Participation in educational programs as most effective rehabilitation				0.59	2.86**
<10	21	3.33	0.91		
11-20	9	3.00	1.00		
21-30	6	3.50	0.84		
31-40	4	2.75	1.26		
>50	37	3.14	0.98		

that there are no differences in the perceptions of importance of EAP components with regard to the number of employees hired last recruitment season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not reveal significant differences among the groups with regard to item 2, support of 12-step program participation ($F=.58$, $p<.68$). Although the ANOVA results were not statistically significant, the contrast-t revealed that differences in this rating were statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=5.39$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than those who hired more than 50 employees (weighted mean=4.29 versus 4.56). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of

employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also indicates that the analysis of variance procedure did not point to significant differences among the groups with regard to item 3, responsibility of employee to deal with the problem ($F=1.32$, $p<.27$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=4.12$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=2.13 versus 2.62). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also shows that the analysis of variance procedure did not point to significant differences among the groups with regard to item 4, providing paid leave for treatment ($F=1.50$, $p<.21$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus

employers who hired more than 50 employees ($t=4.76$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=3.75 versus 4.28). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the ratings of EAP with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 6, support of total confidentiality regarding EAP usage ($F=.33$, $p<.85$). Although the ANOVA results were not statistically significant, the contrast- t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=5.80$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=4.60 versus 4.71). Based on the Scheffe procedure there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the

research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 further indicates that the analysis of variance procedure pointed to significant differences among the groups with the overall F test with regards to item 7, support groups as the most effective rehabilitation ($F=2.73$, $p<.05$). A contrast t-test was used to examine differences among those employers hiring fewer than 50 employees versus hiring 50 or more. Results of the contrast-t test revealed that the rating of support groups as the most effective rehabilitation was statistically significant between those employers who hired fewer than 51 employees and those who hired 50 or more ($t=4.68$, $p<.01$). Using the Scheffe, no significant differences in pairs of means were found for item 7. Thus, based on results of the statistical analyses the null hypothesis that there are no significant differences in the perceptions of importance of EAP components with regard to the number of employees hired within the last recruitment season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 9, support of a therapy approach ($F=.81$, $p<.52$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=3.73$, $p<.01$). Regardless, employers who hired fewer than 51 employees tended to have the same mean as employers who

hired more than 50 employees (weighted means=3.81 and 3.81). Based on the Scheffe procedure, there were no significant differences in paris of means. Thus, despite the significance of the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was not rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 10, support of informal policies ($F=2.12$, $p<.09$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=3.34$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=2.80 versus 2.97). Based on the Scheffe procedure, there were no significant differences in paris of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also indicates that the analysis of variance procedure did not point to significant differences among the groups with regard to item 12, a beginning and an end to the employee's problem ($F=.75$, $p<.56$). Although the ANOVA results were not statistically significant, contrast t-tests were conducted to determine specific differences among the groups. The contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=2.97$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=2.15 versus 2.49). Based on the Scheffe procedure, there were no differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 13, need for top management endorsement ($F=1.11$, $p<.36$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=5.83$, $p<.01$). Employers who hired fewer than 51 employees tended to have higher means than employers who

hired more than 50 employees (weighted mean=4.64 versus 4.59). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 14, providing paid leave for outpatient treatment ($F=.65$, $p<.63$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=2.87$, $p<.01$). Employers who hired fewer than 51 employees tended to have higher means than employers who hired more than 50 employees (weighted mean=3.27 versus 3.56). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 15, necessity of a company referral ($F=.75$, $p<.56$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=2.69$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=2.54 versus 2.75). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 16, individual counseling as most effective approach ($F=.67$, $p<.62$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=3.60$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=2.95 versus 3.09). Based on the Scheffe

procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 17, involvement from significant others and supervisors ($F=.82, p<.52$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees versus those who hired more than 50 ($t=3.06, p<.01$). Employers who hired fewer than 51 employees tended to have lower means than those who hired more than 50 (weighted mean=3.54 versus 3.79). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 further displays that the analysis of variance procedure pointed to significant differences among the groups with regards to item 18, support of mandatory involvement, ($F=3.09, p<.02$). A contrast t-test was used to examine the differences among the groups

hiring fewer than 50 employees versus those hiring more than 50. Results of the contrast-t revealed that the rating of support of mandatory involvement was statistically significant among employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=3.40, p<.01$). Employers who hired fewer than 51 employees tended to have lower means than those who hired more than 50 (weighted mean=2.68 versus 3.33). Using the Scheffe procedure no significant differences in pairs of means were found for item 18. Thus based on the statistical analyses the null hypothesis that there are no differences in the perceptions of importance of EAP components with regard to the number of employees hired last recruitment season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 19, providing total financial support ($F=2.29, p<.07$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=4.70, p<.01$). Employers who hired fewer than 51 employees tend to have lower means than employers who hired more than 50 employees (weighted mean=2.78 versus 3.42). Based on the Scheffe procedure there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the

perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Table 9 also reveals that the analysis of variance procedure did not point to significant differences among the groups with regard to item 20, participation in educational programs as most effective rehabilitation ($F=.59$, $p<.70$). Although the ANOVA results were not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired fewer than 51 employees during the 1989-1990 recruitment season versus employers who hired more than 50 employees ($t=2.86$, $p<.01$). Employers who hired fewer than 51 employees tended to have lower means than employers who hired more than 50 employees (weighted mean=3.22 versus 3.14). Based on the Scheffe procedure there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no differences in the perceptions of EAP components with regards to the number of employees hired last recruiting season was rejected; there is evidence to support the research hypothesis that the number of employees hired during the 1989-1990 recruitment season is related to the perceptions of EAP components.

Hypothesis I: Comparison of EAP ratings by percentage new female hires

While comparing the percentage of new female hires to employer responses to specific survey items, it appeared that the employers had quite similar perceptions of the importance of EAP components. The only items which showed a significant difference were item 5 (regarding self-referral as necessary for success in the EAP) and item 6 (support of total employee confidentiality).

As indicated in Table 10, the analysis of variance procedure conducted regarding self referral as necessary for EAP success, item 5, pointed to significant differences among the groups with a significant overall F test ($F=3.21$, $p<.01$). The contrast-t was not statistically significant for the contrast of those employers with up to 50% new female hires versus those with more than 50% of their hires being female. For comparison of pairs of means, the Scheffe procedure, which is very conservative, was used to test the differences in pairs. However, the small number of employers in some of the groups would influence the tests for statistical difference among pairs of means for the groups. Also the tests for pairs and the contrast t-test examined specific comparisons and not all possible comparisons. Thus, based on results of the ANOVA the null hypothesis that there are no significant differences in the perceptions of importance of EAP components with regard to the percentage of female hires was rejected; there is evidence to support the research hypothesis that the percentage of females hired is related to the perception of EAP components.

Table 10 also indicates that the analysis of variance procedure did not point to statistical differences among the groups with regard to item 6, support of total employee

Table 10. Comparison of ratings of 20 EAP items by percentage of female hires.

Item	Number	Mean	S.D.	f Ratio	Contrast t Values
Item 1. Well-developed written policies				0.68	-0.44
<20%	16	4.38	0.81		
21-30%	22	4.41	0.85		
31-40%	11	4.55	0.69		
41-50%	12	4.00	1.21		
>50%	14	4.21	0.89		
Item 2. Support of 12-step program participation				1.27	-1.91
<20%	16	4.25	1.18		
21-30%	21	4.57	0.93		
31-40%	11	4.64	0.81		
41-50%	10	4.50	0.71		
>50%	13	3.92	0.95		
Item 3. Responsibility of employee to deal with the problem				0.92	-1.23
<20%	16	2.06	1.18		
21-30%	22	2.55	1.14		
31-40%	11	2.55	1.29		
41-50%	11	2.45	0.93		
>50%	14	2.00	0.78		
Item 4. Providing paid leave for treatment				0.48	-0.41
<20%	15	3.80	1.20		
21-30%	22	4.09	1.34		
31-40%	11	4.27	1.19		
41-50%	11	3.63	1.68		
>50%	14	3.78	1.18		

scale for rating: 1=<20%; 2=21-30%; 3=31-40%; 4=41-50%; 5=>50%

** significance at the .01 level

Table 10 (continued)

Item 5. Self referral essential for success				3.21**	-1.36
<20%	16	3.81	0.98		
21-30%	22	4.18	1.05		
31-40%	10	3.70	1.34		
41-50%	10	2.80	1.32		
>50%	14	3.14	1.29		
Item 6. Support of total confidentiality				1.24	2.35**
<20%	17	4.35	0.10		
21-30%	21	4.80	0.60		
31-40%	11	4.64	1.21		
41-50%	11	4.45	1.04		
>50%	14	4.93	0.27		
Item 7. Support groups as most effective rehabilitation				0.11	-0.14
<20%	16	3.69	1.20		
21-30%	22	3.82	0.85		
31-40%	10	3.90	0.88		
41-50%	10	3.90	0.88		
>50%	14	3.79	0.89		
Item 8. Voluntary EAP participation				0.55	-0.86
<20%	16	3.50	0.89		
21-30%	22	3.36	1.22		
31-40%	10	3.80	0.92		
41-50%	11	3.27	1.10		
>50%	14	3.21	0.98		
Item 9. Support of therapy approach				1.15	-1.23
<20%	15	3.80	1.21		
21-30%	18	3.94	0.87		
31-40%	9	4.33	0.71		
41-50%	10	3.60	0.84		
>50%	14	3.57	0.85		

Table 10 (continued)

Item 10. Support of informal policies				0.34	-0.71
<20%	13	3.08	1.12		
21-30%	18	2.94	1.16		
31-40%	8	2.88	1.46		
41-50%	9	2.67	1.12		
>50%	14	2.64	0.93		
Item 11. Employee's financial contribution crucial				0.23	-0.30
<20%	15	2.47	1.41		
21-30%	21	2.57	1.12		
31-40%	9	2.33	1.12		
41-50%	10	2.20	1.14		
>50%	14	2.29	1.07		
Item 12. A beginning and end to employee's problem				0.32	-0.12
<20%	14	2.21	1.12		
21-30%	20	2.60	1.05		
31-40%	10	2.30	1.42		
41-50%	10	2.20	1.48		
>50%	14	2.29	1.07		
Item 13. Need for top management endorsement				0.32	0.81
<20%	16	4.69	0.48		
21-30%	21	4.57	0.68		
31-40%	10	4.70	0.67		
41-50%	12	4.58	0.79		
>50%	14	4.79	0.43		
Item 14. Providing paid leave for outpatient treatment				0.48	0.30
<20%	15	2.93	1.53		
21-30%	19	3.63	1.30		
31-40%	9	3.33	1.87		
41-50%	11	3.27	1.49		
>50%	14	3.43	1.45		

Table 10 (continued)

Item 15. Necessity of a company referral				1.03	0.84
<20%	14	2.57	1.22		
21-30%	20	3.00	1.26		
31-40%	10	2.50	1.51		
41-50%	10	2.10	1.10		
>50%	14	2.8	1.10		
Item 16. Individual counseling as most effective approach				1.02	-0.67
<20%	16	3.38	0.96		
21-30%	19	3.16	1.01		
31-40%	9	2.78	1.30		
41-50%	10	2.70	1.25		
>50%	14	2.79	0.98		
Item 17. Involvement from significant others and supervisors				0.92	-1.32
<20%	15	3.87	1.06		
21-30%	20	3.95	1.05		
31-40%	10	3.50	1.35		
41-50%	10	4.10	0.99		
>50%	14	3.43	0.94		
Item 18. Support of mandatory involvement				0.95	0.08
<20%	15	2.93	1.22		
21-30%	19	2.89	1.24		
31-40%	10	2.70	1.34		
41-50%	9	3.67	1.32		
>50%	13	3.08	0.64		
Item 19. Providing total financial support				0.64	-1.04
<20%	14	3.07	1.27		
21-30%	19	3.42	1.12		
31-40%	9	3.11	1.54		
41-50%	11	2.91	1.58		
>50%	14	2.71	1.20		

Table 10 (continued)

Item 20. Participation in educational programs as most effective rehabilitation				0.55	-0.46
<20%	15	3.33	1.18		
21-30%	20	3.40	0.82		
31-40%	10	3.20	1.23		
41-50%	11	2.91	0.94		
>50%	14	3.07	0.92		

confidentiality ($F=1.24$, $p<.30$). Although the ANOVA was not statistically significant, the contrast-t revealed that this rating was statistically significant between employers who hired up to 50% new female hires and those who hired more than 50% females ($t=2.35$, $p<.01$). Employers who hired more than 50% females tended to have higher means than those who hired fewer (weighted mean=4.93 versus 4.58). Based on the Scheffe procedure, there were no significant differences in pairs of means. Thus, based on the statistical analysis for the specific contrast the null hypothesis that there are no significant differences in the perceptions of importance of EAP components with regards to the percentage of new female hires was rejected; there is evidence to support the research hypothesis that the percentage of females hired is related to the perception of EAP components.

Hypothesis II: Comparison of EAP ratings by pre-employment testing group

While comparing the pre-employment testing policies within an organization to employer responses to specific survey items, it appeared that the employers felt similarly about the importance of EAP components. There was a significant difference, however,

regarding item 10 (belief that informal procedures allow for feasibility and freedom for employees).

As indicated in Table 11, the analysis of variance procedure conducted regarding item 10, the significance of informal procedures allowing for feasibility and freedom for employees pointed to significant differences among the groups ($F= 4.59$, $p<.01$). A contrast t-test was used to examine the difference among those employers who pre-tested for both alcohol and/or other drugs and those who did not pre-test. Results of the contrast-t test revealed that the rating of belief in informal procedures was significantly different among employers who pre-tested for both alcohol and other drugs and only for drugs versus those employers who did not pre-test ($t=2.91$, $p<.01$). Employers who pre-tested valued informal EAP procedures less than did those who did not pre-test.

The Scheffe test also supports the results found by the overall F and contrast-t. Companies who pre-test for both alcohol and other drugs appear to place less value on informal policies than do those who do not pre-test for either alcohol or other drugs (2.32 versus 3.26). There were no differences among the employers who pre-test for other drugs only and those who do not perform any pre-testing. Thus, based on the statistical analyses the null hypothesis that there are no differences in the perceptions of importance of EAP components with differing testing policies with regard to pre-employment alcohol and/or other drug testing was rejected; there is evidence to support the research hypothesis that the perceptions of EAP components is related to pre-employment testing.

Table 11. Comparison of ratings of 20 EAP items by pre-employment testing groups.

Item	Number	Mean	S.D.	f Ratio	Contrast t Values
Item 1. Well-developed written policies					
				1.94	-1.64
Both	23	4.57	0.66		
Drugs Only	24	4.25	1.19		
Neither	25	4.09	0.82		
Item 2. Support of 12-step program participation					
				0.65	-1.11
Both	22	4.55	0.96		
Drugs Only	23	4.48	0.67		
Neither	33	4.27	1.07		
Item 3. Responsibility of employee to deal with the problem					
				0.36	-0.84
Both	23	2.39	0.89		
Drugs only	24	2.42	1.14		
Neither	35	2.20	1.16		
Item 4. Providing paid leave for treatment					
				1.71	-1.05
Both	21	4.43	0.93		
Drugs only	23	3.84	1.59		
Neither	35	3.83	1.22		
Item 5. Self referral essential for success					
				1.12	0.07
Both	21	3.86	1.15		
Drugs only	23	3.30	1.18		
Neither	35	3.60	1.31		

scale for rating: 1= both alcohol and other drug testing; 2= alcohol only testing; 3= other drug only testing; 4= neither alcohol or other drug testing
 there were no respondents in the alcohol only category (2)

** significant at the .01 level

Table 11 (continued)

Item 6. Support of total confidentiality					
				0.58	0.57
Both	22	4.73	0.88		
Drugs only	23	4.52	0.85		
Neither	36	4.72	0.61		
Item 7. Support groups as most effective rehabilitation					
				0.81	-0.88
Both	21	3.71	0.96		
Drugs only	23	3.96	0.82		
Neither	35	3.66	0.91		
Item 8. Voluntary EAP participation					
				1.74	1.75
Both	22	3.09	1.11		
Drugs only	23	3.30	1.06		
Neither	36	3.61	1.02		
Item 9. Support of therapy approach					
				0.27	0.73
Both	21	3.76	1.14		
Drugs only	19	3.74	0.93		
Neither	33	3.91	0.77		
Item 10. Support of informal policies					
				4.59**	2.91**
Both	19	2.32	1.20		
Drugs only	19	2.74	1.37		
Neither	31	3.26	0.77		
Item 11. Employee's financial contribution crucial					
				0.32	0.37
Both	21	2.19	1.25		
Drugs only	22	2.45	1.22		
Neither	33	2.42	1.15		
Item 12. A beginning and end to employee's problem					
				0.27	0.72
Both	21	2.24	1.22		
Drugs only	22	2.18	1.14		
Neither	32	2.41	1.16		

Table 11 (continued)

Item 13. Need for top management endorsement					
				0.26	0.49
Both	22	4.59	0.91		
Drugs only	25	4.48	0.71		
Neither	34	4.62	0.65		
Item 14. Providing paid leave for outpatient treatment					
				0.24	-0.62
Both	20	3.56	1.53		
Drugs only	22	3.41	1.68		
Neither	33	3.27	1.17		
Item 15. Necessity of a company referral					
				0.82	-1.05
Both	21	2.62	1.43		
Drugs only	23	2.87	1.22		
Neither	31	2.45	0.96		
Item 16. Individual counseling as most effective approach					
				0.77	0.96
Both	20	3.05	1.05		
Drugs only	23	2.83	1.15		
Neither	32	3.16	0.77		
Item 17. Involvement from significant others and supervisors					
				1.87	-1.59
Both	21	4.10	0.94		
Drugs only	22	3.73	1.39		
Neither	33	3.52	0.91		
Item 18. Support of mandatory involvement					
				1.25	-1.54
Both	21	3.24	1.34		
Drugs only	22	3.09	1.19		
Neither	30	2.73	1.05		
Item 19. Providing total financial support					
				2.51	-0.72
Both	21	3.62	1.20		
Drugs only	21	2.76	1.58		
Neither	32	2.97	1.18		

Table 11 (continued)

Item 20. Participation in educational programs as most effective rehabilitation			
		1.68	-1.68
Both	21	3.43	1.03
Drugs only	24	3.21	1.02
Neither	32	2.97	0.69

Hypothesis II: Comparison of EAP ratings by current testing group

While comparing the current employee alcohol and/or other drug testing policies to employer responses to specific survey items, it appeared that the employers had a similar perception about the importance of EAP components. The only item which showed a significant difference was item 1, regarding the importance of well-developed policies.

As indicated in Table 12, the analysis of variance procedure pointed to significant differences among the groups with a significant overall F test with regard to item 1, well developed EAP policies pointed to significant differences ($F=3.29$, $p<.05$). A contrast t-test was used to examine the difference among those employers who tested current employees for alcohol and/or other drugs and those who did not perform testing among current employees. Results of the contrast t-test revealed significant differences among employers who test current employees for alcohol and other drugs and only for drugs versus those employers who do not test current employees for alcohol and/or other drugs ($t= -2.32$, $p<.02$). Employers who test current employees place greater value on well developed policies than do employers who do not test current employees for alcohol and/or other drugs. Using the Scheffe procedure no significant differences in pairs of

Table 12. Comparison of ratings of 20 EAP items by current employee testing groups.

Item	Number	Mean	S.D.	f Ratio	Contrast t Values
Item 1. Well-developed written policies					
				3.29*	-2.32*
Both	22	4.66	0.66		
Drugs only	9	4.56	1.01		
Neither	51	4.10	0.94		
Item 2. Support of 12-step program participation					
				1.26	0.47
Both	22	4.60	1.10		
Drugs only	9	4.00	0.71		
Neither	47	4.40	0.90		
Item 3. Responsibility of employee to deal with the problem					
				0.55	-0.91
Both	23	2.52	1.16		
Drugs only	9	2.44	1.01		
Neither	50	2.24	1.10		
Item 4. Providing paid leave for treatment					
				1.39	-1.45
Both	21	4.05	1.32		
Drugs only	9	4.67	0.71		
Neither	49	3.92	1.27		
Item 5. Self referral essential for success					
				2.38	2.17
Both	21	3.33	1.53		
Drugs only	9	2.89	1.05		
Neither	49	3.78	1.14		

scale for rating: 1= both alcohol and other drug testing; 2=alcohol only testing; 3=other drug only testing; 4= neither alcohol or other drug testing.

there were no respondents in the alcohol only category (2)

* significance at the .05 level

Table 12 (continued)

Item 6. Support of total confidentiality				2.81	1.82
Both	22	4.27	1.312		
Drugs only	9	4.56	0.73		
Neither	50	4.78	0.55		
Item 7. Support groups as most effective rehabilitation				0.21	0.63
Both	22	3.68	1.09		
Drugs only	9	3.67	0.87		
Neither	48	3.81	0.82		
Item 8. Voluntary EAP participation				1.34	1.63
Both	23	3.22	1.28		
Drugs only	9	3.00	1.00		
Neither	49	3.53	0.96		
Item 9. Support of therapy approach				0.28	0.74
Both	20	3.75	1.29		
Drugs only	8	3.75	0.71		
Neither	45	3.91	0.70		
Item 10. Support of informal policies				1.14	1.09
Both	19	2.58	1.39		
Drugs only	8	2.88	1.36		
Neither	42	3.05	0.94		
Item 11. Employee's financial contribution crucial				0.85	0.95
Both	21	2.43	1.17		
Drugs only	9	1.89	1.27		
Neither	46	2.43	1.17		
Item 12. A beginning and end to employee's problem				0.74	1.12
Both	22	2.27	1.24		
Drugs only	9	1.89	1.17		
Neither	44	2.41	1.15		

Table 12 (continued)

Item 13. Need for top management endorsement					
				0.96	1.33
Both	23	4.52	0.90		
Drugs only	10	4.30	0.82		
Neither	48	4.65	0.64		
Item 14. Providing paid leave for outpatient treatment					
				1.45	0.19
Both	20	3.00	1.65		
Drugs only	9	3.89	1.27		
Neither	45	3.51	1.34		
Item 15. Necessity of a company referral					
				1.00	0.72
Both	22	2.77	1.48		
Drugs only	9	2.11	0.93		
Neither	44	2.66	1.10		
Item 16. Individual counseling as most effective approach					
				0.30	0.59
Both	21	2.90	1.30		
Drugs only	10	3.00	1.25		
Neither	44	3.11	0.81		
Item 17. Involvement from significant others and supervisors					
				1.12	1.17
Both	21	3.76	1.37		
Drugs only	9	3.22	0.97		
Neither	46	3.80	0.93		
Item 18. Support of mandatory involvement					
				2.91	-2.35
Both	21	3.33	1.39		
Drugs only	9	3.44	0.88		
Neither	43	2.72	1.03		
Item 19. Providing total financial support					
				1.89	0.23
Both	20	3.45	1.32		
Drugs only	9	2.44	1.33		
Neither	45	3.02	1.31		

Table 12 (continued)

Item 20. Participation in educational programs as most effective rehabilitation				1.31	1.45
Both	22	2.91	1.27		
Drugs only	10	3.00	0.94		
Neither	45	3.29	0.76		

means were found for item 1. Thus, based on results of the statistical analyses the null hypothesis that there are no significant differences in the perceptions of the importance of EAP components in companies with differing testing policies with regard to current employee alcohol and/or other drug testing was rejected; there is evidence to support the research hypothesis that the rating of perceptions of EAP components is related to current employee testing.

Hypothesis III: Independence of current employee testing group by pre-employment group

While testing whether the policies for current employees for alcohol and/or other drugs are independent of those who pre-test, it appeared that testing policies for current employees are not independent of pre-employment testing policies.

The null hypothesis that the testing policies for current employees is independent of the testing policies for pre-employment was rejected at the .01 level (Chi-square=77.72, df=4); there is evidence to support the research hypothesis that the testing policies for current employees are dependent on the testing policies for pre-employment. Table 13

reveals the frequency of employers who test for both alcohol and other drugs, other drugs only, and neither in both testing groups.

Those employers who pre-test for both alcohol and other drugs, also appear to test current employees for both alcohol and other drugs. Likewise, those who do not pre-test for alcohol or other drugs do not test current employees either. In addition, it appears that if employers pre-test only for other drugs at the pre-level it is highly likely that they also test current employees; similarly if they do not pre-test at the pre-level, it is highly likely that they do not test at the current level. Thus, there appears to be a dependent relationship among pre-testing and testing current employees.

Hypothesis III: Independence of EAP group by pre-employment group

While testing whether the EAP components are independent of the pre-employment testing policies, it appeared that EAPs are not independent of pre-employment testing policies. The null hypothesis that the perceptions of EAP items is independent of the testing policies for pre-employment was rejected at the .01 level of significance ($\text{Chi-square}=18.65, \text{df}=2$); there is evidence to support the research hypothesis that the perceptions of EAP components is dependent on the pre-employment testing policies. Table 14 reveals the frequency of employers who provide EAPs for both alcohol and other drugs or neither alcohol or other drugs and pre-test for both or neither. The alcohol only and other drug only categories for the EAP group are not reflected because following the original Chi-square procedure, more than 20% of the cells were less than 5. Therefore, cells were combined by recoding data.

Table 13. Testing policies of current employees by pre-employment.

Current Employee	Pre-Employment			Total Number Valid %
	Both Alcohol and OD Number Valid %	OD only Number Valid %	Neither alcohol or OD Number Valid %	
Both alcohol and OD	17 63.0%	6 22.2%	2 2.8%	25 20.0%
OD only	1 3.7%	10 37%	1 1.4%	12 9.6%
Neither alcohol or OD	9 33.3%	11 40.7%	68 95.8%	88 70.4%
<hr/>				
Total	27 21.6%	27 21.6%	71 56.8%	125 100%
<hr/>				
OD refers to other drugs Seven cases were missing				
<hr/>				

Those employers who perform pre-employment testing for both alcohol and other drugs or other drugs only, also tend to have EAPs for both alcohol and other drugs. It also appears that those employers who do not perform pre-testing are not likely to have EAPs of any sort.

Hypothesis III: Independence of EAP group by current group

While testing whether the EAP components are independent of current employee testing policies, it appeared that EAPs are not independent of testing policies for current

Table 14. EAP by pre-employment group.

EAP	Pre-employment			
	Both Alcohol Number Valid %	and OD Number Valid %	OD only Number Valid %	Neither Total Number Valid %
Both EAP alcohol and OD	24 85.7%	26 86.7%	35 50.0%	85 66.4%
Neither EAP alcohol or OD	4 14.3%	4 13.3%	35 50.0%	43 33.6%
Total	28 21.9%	30 23.4%	70 54.7%	128 100%
OD refers to other drugs Four cases were missing				

employees. The null hypothesis that the perceptions of EAP items is independent of the testing policies for current employees was rejected at the .01 level of significance (Chi-square=13.03, df=2); there is evidence to support the research hypothesis that EAP components are dependent on current employee testing policies. Table 15 reveals the frequency of employers who provide EAPs for both alcohol and other drugs or neither alcohol or other drugs and test current employees for both or neither. The alcohol only and other drug only categories for the EAP group are not reflected because following the original Chi-square procedure, more than 20% of the cells were less than 5. Therefore, cells were combined by recoding data to produce a more reliable and valid analysis.

Those employers who perform testing of current employees for both alcohol and other drugs or other drugs only, also tend to have EAPs for both alcohol and other drugs. It also appears that those employers who do not perform testing among current employees are less likely to have EAPs of any sort. Again, there appears to be a dependent relationship among EAPs and current employee testing.

Results of open ended questions

Employers also provided information in open-ended questions. Questions 14, 19, 29, 34, 43, and 45 were selected to expand upon because of the valuable information provided in the employer responses. After all responses were completed, the results were tabulated numerically. The numbers of responses discussed include all employer responses, which in some cases represent data which were coded as missing (8=skip; 9=no response); in some cases employers who answered no to alcohol and/or other drug testing (and were directed to continue with the survey in the following section) provided responses to some or all of the open-ended questions. Also, in some cases the responses provided information in more than one category and were counted in each appropriate category or were not legible and therefore not counted in any category.

Question 14 asked what options exist for candidates who refuse to complete pre-employment alcohol and/or drug testing. There were six responses to this question; one-half (3) stated that the candidates were no longer considered for employment and one-half (3) indicated that the candidates could reapply and complete another pre-test.

Table 15. EAP by current employee group.

EAP	Current Employees			Total Number Valid %
	Both Alcohol and OD Number Valid %	OD only Number Valid %	Neither Number Valid %	
Both EAP alcohol and OD	24 92.3%	10 83.3%	50 56.8%	84 66.7%
Neither EAP alcohol or OD	2 7.7%	2 16.7%	38 43.2%	42 33.3%
Total	26 20.6%	12 9.5%	88 69.8%	126 100%
OD refers to other drugs Six cases were missing				

Question 19 further examined the impact of pre-testing for alcohol and other drugs if the initial screening and necessary additional tests were positive. Table 16 highlights the categories of responses provided by the employers.

It appears that candidates are likely to lose their employment eligibility if they test positive for alcohol and/or other drugs, with relatively little recourse. Only 10% of candidates who test positive for alcohol and 15% who test positive for other drugs have an opportunity to provide an explanation of extenuating circumstances, such as prescription drugs, over test results. A small percentage (5% alcohol; 19% other drugs) are encouraged to reapply after a specified amount of time, such as six months or one

Table 16. Employer responses to question 19.

Response	Alcohol	Other drugs
Not hired	16	31
Retested	1	3
Medical explanation requested	2	8
Must complete rehabilitation	1	1
Reapply after specified time	1	10
<hr/>		
Total	21	53

year. And, an even smaller percentage are required to complete rehabilitation before being considered for employment.

Questions 29 and 34 related directly to questions 14 and 19, but focussed on testing among current employees. Question 29 addressed the options that exist if employees refuse to complete alcohol and other drug testing. In this case, 11 employers indicated that disciplinary action would be taken, ranging from reassignment of jobs to termination. Four employers refer their employees to an EAP, and demand that they participate in some form of rehabilitation or lose their jobs.

Question 34 investigated procedures related to positive test results. Table 17 specifies categories of employer responses.

Table 17. Employer responses to question 34.

Response	Alcohol	Other drugs
Termination	3	8
Rehabilitation (including EAP) or dismissal	13	19
Suspension	1	3
Depends	3	1
None	1	0
Total	21	31

Thus, it appears that current employees are strongly encouraged to participate in some type of rehabilitation program as an alternative to termination. Suspension, ranging from 2 weeks without pay to a requirement to test "clean" before returning to work for a 2 year probationary period, may also be seen as an alternative. Extenuating circumstances may also be taken into account, depending on one's past history and medical record (example: use of prescription drugs)

In addition to the procedures in place for positive test results, questions 43 and 45 focussed on outcomes achieved by EAPs. Question 43 sought specific outcomes achieved from EAPs; responses included improved morale (3), less lost time and better work (3), safety (1), improved mental health (1), dedication (1), and more supervisory control (1).

Important EAP components (question 45) include: an educated management staff; communication; accessibility; impartial evaluation; family participation; strong follow-up; recognition of the problem and willingness to deal with it; good aftercare; mandatory spiritual related counseling; confidentiality; and job performance related.

CHAPTER V. DISCUSSION, SUMMARY, AND CONCLUSIONS

This chapter provides a brief summary of the research project, as well as discussion of the results described in Chapter IV and considerations formulated on the basis of the results. Recommendations for further study are also provided.

The problem studied in this research project resulted from a literature review which confirmed that there is growing concern among employers regarding alcohol and drug abuse within the work place. Explanation of corporate assessment and intervention techniques designed to address this problem, including pre-employment drug testing, drug testing within the work place and EAPs was necessary to determine the prevalence, types, and effectiveness of these programs as they may affect university graduates who face drug testing in the job search process. The topic provided the researcher a framework which combined two areas of interest: career development and chemical dependency.

The specific purpose of this study was to explore differences in perceptions of employers with regards to EAPs geared toward alcohol and drug abuse and pre-employment drug testing and drug testing within the work place, to develop a profile of employers who utilize drug testing and portray characteristics which are conducive to successful EAPs geared to alcohol and/or other drug abusive employees.

To explore these issues, all employers recruiting through the placement offices servicing students in business and liberal arts and sciences at ISU, U of I, and UNI during the 1989-1990 academic year were surveyed. I assumed that the employers would provide honest and accurate responses, and that the survey items were valid and reliable.

The survey, as well as the hypotheses for the study, were built upon previous studies and literature, discussed in Chapter II. Statistical analyses were performed to determine significant differences among the groups by analysis of variance procedures and Chi-square; the level of significance for probability was .05. Responses to open-ended questions were also tabulated and analyzed to further profile employers and their testing policies.

The following research hypotheses were supported based on results revealing statistically significant differences for sub-hypotheses:

1. Hypothesis: There are differences in the perceptions of the importance of EAP components with regard to selected independent variables including (a) number of employees; (b) employees hired during the last recruitment season (1989-1990); (c) percentage new female hires.
2. Hypothesis: There is a difference in the perceptions of the importance of EAP components in companies with differing testing policies (testing for both alcohol and other drugs; only alcohol or other drugs; neither alcohol or other drugs) with regard to selected independent variables including (a) pre-employment alcohol and/or other drug testing; (b) current employee alcohol and/or other drug testing.
3. Hypothesis: The testing policies for current employees are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for current employees.

Specific differences related to Hypothesis One include differences in the perceptions of the importance of EAP components, with regard to the total number of employees, to item 1 (We have well-developed policies concerning employee utilization of the EAP). Organizations of different sizes differ in their perception of the need for well-developed policies.

There was also a difference in the perceptions of the importance of EAP components with regards to employees hired during the 1989-1990 recruitment season. Organizations who hired differing numbers of employees differed in their perceptions of EAP components as related to items:

1 (We have well-developed written policies and procedures concerning employee utilization of the EAP); 2 (We support employee participation in twelve step programs (Alcoholics Anonymous, Narcotics Anonymous, etc...) and after care programs); 3 (We feel that the responsibility for dealing with the problem lies solely with employee, independent of the employer); 4 (We provide paid leave from work while an employee completes inpatient treatment); 6 (We support total employee confidentiality concerning utilization of the EAP); 7 (We believe that an employee's participation in support groups is the most effective rehabilitative approach to substance abuse problems); 10 (We believe informal procedures allow for feasibility and freedom for employees); 12 (We believe that there is a definite beginning and end for the employee dealing with the problem); 13 (We believe that strong support and endorsement from top management is essential to a successful EAP); 14 (We support paid leave from work while an employee participates in outpatient treatment); 15 (We believe that company referral is necessary

for success in dealing with the problem); 16 (We believe that individual counseling is the most effective rehabilitative approach to substance abuse problems); 17 (We support involvement from supervisors and "significant others" in dealing with those employees with substance abuse problems); 18 (We support mandatory employee involvement); 19 (We provide total financial support for employee participation in rehabilitative substance abuse programs); and 20 (We believe that participation in an educational program is the most effective rehabilitative approach to substance abuse problems).

Further differences specific to Hypothesis One include the perceptions of EAP components, with regard to the percentage of female hires, as it related to items 5 (We believe that self referral is necessary for success in dealing with the problem); and 6 (We support total employee confidentiality concerning utilization of the EAP). Organizations who hired differing numbers of females differed in their perceptions of these EAP components.

Significant differences related to Hypothesis Two include differences in the perceptions of the importance of EAP components, in companies with differing policies with regard to preemployment alcohol/drug testing, as related to items 10 (We believe informal procedures allow for feasibility and freedom for employees); and current employee testing as related to item 1 (We have well-developed policies and procedures concerning employee utilization of the EAP). Organizations with differing testing policies differed in their perception of these EAP components.

Differences also existed with regard to Hypothesis Three. There was a dependent relationship among the current employee and pre-employment groups; EAP and pre-employment groups; and EAP and current employees groups.

In addition to the statistical findings that enable the researcher to support the three research hypotheses, information provided in the open-ended responses was valuable in identifying characteristics which further describe the employers. For example, when candidates or employees refuse to complete testing procedures or test positive, frequently they are no longer considered for employment or are terminated. Alternatives include re-testing after a designated time or referral to some type of rehabilitative assistance.

Discussion of the Results

Ratings of EAP items by demographic variables

Based on the literature review, it was hypothesized that there are differences in the perceptions of importance of EAP components with regard to demographic variables (total number of employees; employees hired during the 1989-1990 academic year; percentage new female hires). Statistical rejection underscores the importance of well-developed EAP policies (item 1) as it relates to the size of the organization and the number of hires. Based on this study, larger organizations and those who hire more employees place higher value on formal policies.

These findings are consistent with most of the previous literature which states that while success of an EAP is dependent upon a formal policy statement, at least one-half do not have formal, up-to-date policies (Brewer, 1988; Gam et. al., 1983; McClellan,

1987; Roman and Blum, 1989; State and Local Government Labor-Management Committee, 1988). The findings of this study revealed that smaller organizations, with fewer staff, do not value, or justify taking time to develop, formal policies. Other factors that explain this finding include the organization's position regarding drug abuse and the reluctance on the part of some employers to reveal the drug problems within their organization. Organizations fear the negative public relations which associated with admission of substance abuse within their work place; some employers perceive a formal, written policy as an admission to an ugly problem.

There was a relationship between the number of employees hired during the 1989-1990 recruitment season and employer perceptions of numerous EAP components. Employer perceptions differed with regard to support of employee participation in twelve step programs (item 2); responsibility for dealing with the problem lying solely with the employee (item 3); providing paid leave during inpatient treatment (item 4); belief that participation in support groups is most effective (item 7); belief in informal policies allowing for feasibility and freedom (item 10); belief in a definite beginning and end to problem (item 12); belief in endorsement from top management as essential (item 13); providing paid leave during outpatient treatment (item 14); belief that company referrals are necessary for success (item 15); belief that individual counseling is most effective (item 16); supporting involvement from supervisors and others (item 17); supporting mandatory employee involvement (item 18); providing total financial support for employees (item 19); and belief in educational programs as most effective rehabilitation program (item 20).

With the exception of item 13 (providing paid leave during outpatient treatment), employers who hired more than 50 employees tended to value these items more so than their counterparts who hired 50 or fewer employees. Thus, larger organizations, who hired greater numbers of employees, perceive that it is their responsibility to provide an EAP which addresses these issues more so than their counterparts who are smaller organizations, hiring fewer employees.

Again, consistent with the literature, these findings indicate that these employers value techniques which enable employers to focus on completion of two primary goals: prevention and intervention. The employers who responded to this study, like Roman and Blum (1989), prefer that employees combat their drug problems on their own, but do not hesitate to step in with supervisory control and specific rehabilitative techniques when the employee is no longer functioning adequately within the work place. The employers are not afraid to require mandatory insistent in rehabilitation, stipulating that the employee will be terminated if they do not participate.

Conversely, employers who hired 50 or fewer employees place more value on the need for strong support and endorsement from top management (item 13) than do their counterparts who hired more than 50 employees. Smaller organizations have fewer layers of management and are more likely to rely on and be more closely associated with top management; larger organizations, with hierarchical, structured, and specialized functions are less likely to relate directly with top management.

The importance of self-referral for success in dealing with a drug problem (item 5) as related to the percentage of female hires is further accentuated. Employers who hire

50% or fewer females value self-referral more so than their counterparts who hire more than 50% females; neither group rated this item as a high priority (both means <4).

These findings, again, appear consistent with the literature related to the general population of employers, which indicates that only 33% of employees refer themselves for assistance (Roman and Blum, 1989). Because studies specific to female employees were not prevalent in the literature, no conclusions can be drawn to this population.

Support of total employee confidentiality (item 6) was also significant as related to the percentage of female hires as well as the number of employees hired. As pointed out in previous studies, confidentiality is of utmost importance to employees and employers (Levine, 1985; Roman and Blum, 1989; State and Local Government Labor-Management Committee, 1988). Employers in this study also rated this item as significant (≥ 4).

These findings form a basis of support for Research Hypothesis One: there are differences in the perceptions of EAP components with regard to selected demographic variables.

Perceptions of EAP items by employee testing groups

Another hypothesis assumed differences in the perceptions of EAP components in organizations with differing testing policies (both alcohol and other drug; only alcohol or other drug; neither alcohol or other drug) with regard to testing groups (pre-employment and current employees). The employers' perceptions of informal policies allowing for flexibility and freedom for employees (item 10) is significant. Employers who pre-tested for drug use valued informal policies less than those who did not pre-test. Not

surprisingly, neither group valued this item highly (all means ≤ 3.26). According to related literature, written policies are significant to the success of an EAP (Gam et. al., 1983; McClellan, 1987; State and Local Government Labor-Management Committee, 1988; Roman & Blum, 1989). Employers who do not test for drugs are less likely to have an EAP which addresses substance abuse, and are therefore more likely to support informal policies.

Among those who test current employees, there is a statistically significant difference with regard to well developed policies (item 1). Like employers who pre-test, employers who test current employees place greater value on well-developed policies than those who do not test their employees. Again, these findings appear consistent with previous literature; organizations who test also tend to have EAPs with well-defined policies than their counterparts who do not test.

These findings form a basis of support for Research Hypotheses Two: there is a difference in the perception of EAP components in companies with differing testing policies with regard to types of testing.

Independence of testing policies

The third hypothesis assumed the testing policies for current employees are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing policies for pre-employment; and the testing policies for EAPs are dependent on the testing policies for current employees.

The findings show that the testing policies for current employees are dependent on the testing policies for pre-employment, because employers who pre-test also tend to test current employees and those who do not pre-test tend not to test current employees. Of those who test, most focus testing on drugs other than alcohol at both the pre-employment and current employment levels. Approximately 40% of the employers surveyed pre-test and/or test current employees; this figure is consistent with recent literature in which 41% of the surveyed employers were performing drug testing (Sheetz, 1990).

The study also shows that the use of EAPs is dependent on pre-employment testing policies. Employers who test for any or all substances tend to have EAPs which address both alcohol and other drugs. Employers who do not pre-test are also unlikely to have an EAP of any sort. Employers who test current employees for any or all substances also have EAPs geared for both alcohol and other drugs. Similarly, employers who do not perform testing are not likely to have any for of EAP.

These findings form a basis of support for Research Hypothesis Three: the testing policies for current employees are dependent on the testing policies for pre-employment; the testing policies for EAPs are dependent on the testing polices for pre-employment; and the testing policies for EAPs are dependent on the testing policies for current employees.

Open-ended responses

Results of the open-ended questions also provide valuable information which further identifies characteristics of employers with regard to drug testing and EAPs. When candidates or employees refuse testing or have positive test results for alcohol and/or other drugs they are likely to be disqualified or dismissed by the employers surveyed. Other options for the candidates or employees include other disciplinary measures such as probation, re-testing, and mandatory referral for rehabilitation. Despite literature which states that employers agree that comprehensive programs and services are needed to address substance abuse in the work place, this study indicated that a punitive approach is still being enforced (Bickerton, 1988; Gam et. al., 1985; Levine, 1985; Roman & Blum, 1989).

Despite the prevalence of a punitive approach, employers seem to believe in the significance of EAPs. Benefits derived from EAPs included improved morale, less lost time, better safety records and greater supervisory control, dedication, and improved mental health. These findings are consistent with recent literature which highlights these factors as significant also (Roman & Blum, 1989; U.S. Department of Labor, 1988).

Based on the information provided through the open-ended questions and the statistical analysis and rejection of the major hypotheses, there is a difference in the perceptions of EAP with regard to selected demographic variables and varying testing policies. There is also a dependent relationship among testing groups. And, finally, these employers agree that substance abuse within the work place remains a crucial issue,

one which needs continued attention and new alternatives which may enable employers to be more effective in dealing with the problem.

Conclusions

In analyzing and interpreting these findings and exploring other related research, it can be concluded that employers in this study recognize alcohol and drug abuse within the work place as a significant issue. This is illustrated by the employers' dealing with the problem of substance abuse in the work place via drug testing and EAPs.

Approximately 55% of employers responding to this study implement drug testing with candidates and 70% test current employees; the other employers do not perform testing. Despite differences in choosing to test or not to test, most employers (67%) employ an EAP which addresses both alcohol and other drug abuse.

It can further be concluded that selected demographic variables and testing policies may influence content of the EAP. Larger organizations are more likely to implement drug testing, both pre-employment testing and current employee testing, than smaller organizations. Larger organizations also have more well-developed formal policy statements than smaller size employers. Smaller employers, however, value support from top management more so than larger organization. Thus, larger employers rely on written policies for support, while smaller organizations depend upon top management for support.

In addition, it was concluded a dependent relationship among factors of pre-employment testing, current employee testing, and EAPs exists. In this study, employers

who pre-test also test current employees for drugs and vice-versa. Employers who perform drug testing also have EAPs in place which are designed to address substance abuse issues. Employers assume that it is the employee who has the problem and needs to change; implications associated with organizational culture are not considered as problematic, and are in no way contributory to substance abuse within the organizational structure.

Despite the employers' claim that alcohol and drug testing programs are designed to help the employees, in this study candidates and employees who test positive are dropped from the candidate pool or are terminated. An inherent contradiction exists; what employers state as the goals and objectives for testing candidates and current employees may not, in fact, be their goals. Although the employers believe that EAPs are useful in helping alcohol and drug abusers, they are reluctant to hire applicants or retain employees with substance abuse problems. Unfortunately, the traditional, punitive approach to drug testing (where the positive tester is fired) overshadows the developmental approach (where the positive tester is treated and returned to work as a productive employee). Again, employers assume that the fault lies solely with the employee, and that the employer is in no way responsible for the substance abuse problem.

The implications of testing positive are immense for job applicants. An applicant who views drug testing as an invasion of privacy is discriminated against and assumed guilty. Applicants who test positive are also likely to be rejected for employment. They may be penalized for a false-positive test result, particularly in organizations where confirmatory testing is not conducted. They may also be rejected due to positive test

results from prescription or over-the-counter medications. Even if they test negative, but have a history of substance abuse which is designated on the job application (e.g., operating a vehicle while under the influence of alcohol), they may be rejected. Most troubling to applicants is the uncertainty about why they were rejected. Employers may state other reasons for rejection, such as other applicants were better qualified. In this case, the candidate is not able to correct or remedy the situation and continues to be rejected by employers for positive drug test results.

The employee who tests positive for drugs also faces severe consequences. In some instances, he/she will be fired on-the-spot. In other cases, he/she may be referred to rehabilitative treatment, and then terminated for a technicality upon return to work. In other words, the employee's supervisor will be waiting for a mistake to happen so he/she can fire the rehabilitated employee. Likely the substance abusive employee will not receive the benefits of an EAP and remain employed.

The findings of this study also have implications for college students and alumni seeking employment. For example, because alcohol and drug testing are an integral part of the job search process, applicants need to be aware of the realities and consequences drug testing can have on their employment status. Specifically, they need to know what drugs (including prescription, over-the-counter, and illegal) are tested for and how long they stay in the human system. Career services personnel need to incorporate this information into programs and seminars geared to job seeking students and alumni.

Recommendations for Further Study

Based on findings of this research, several areas are worthy of further study:

University placement services

1. What is the awareness level among candidates regarding testing policies and procedures, as well as the impact of such procedures on their employment status? This information could enable placement personnel to address the specific needs of the students and alumni they serve.
2. What types of educational programs specific to alcohol and drug testing are being provided for job search candidates? A collection of such materials could be combined to provide a "cookbook" approach to programming, whereby placement personnel could pick and choose specific program components from various programs, in order to tailor-make a program suited to their particular institution.

Candidates and employees with positive drug test results

1. What specific referral procedures will enable candidates and employees to actively pursue assistance for their alcohol and drug abuse problems? Study of those employers who are getting candidates and employees to EAPs for help, and in turn achieving the benefits of those recovered employees who are back in the workplace, would provide models for other organizations.
2. What are the outcomes of positive testers, both candidates and employees who have been no longer considered for employment or terminated, with regard to the effects

of the positive test results on their employment status as well as their recovery progress? Determining the impact of positive test results on candidates and employees who are rejected or terminated would reveal ways which these individuals overcome roadblocks and achieve success.

Employers implementing drug testing programs

1. What results would occur with difference comparisons and contrasts of the groups with regard to demographic and testing group variables? Exploring beyond the scope of the contrasts tested in this study would enable organizations of various sizes, with different hiring needs, and unique male/female ratios to gain information specific to their organizational structure and culture.

Further exploration of alcohol and drug testing programs and EAPs can lead to more well-informed, educated candidates and employers, and in turn, create more effective employees and more productive, safe, drug-free work environments.

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BIBLIOGRAPHY

- Addiction Research Foundation. (1987). Employment related drug screening - A public health perspective. The Journal, 16(4), 11.
- Alcoholics Anonymous World Services, Inc. (1976). Alcoholics Anonymous (3rd ed.). New York City, New York: Alcoholics Anonymous World Services, Inc.
- Angarola, R.T. (1984). Drugs in the workplace: Legal issues and implications. Grassroots/Employee Assistance, 9(10), 23-28.
- Association of Labor-Management Administrators and Consultants on Alcoholism. (1988). Portfolio of information on the 1988 drug-free workplace act and federal regulations. Arlington, Virginia.
- Balzer, W.K., & Pargament, K.I. (1987). The key to designing a successful employee assistance program. Personnel, 64(7), 48-50, 52, 54.
- Barnes, S. (1990, June). Business testing the market for collecting urine samples. Des Moines Register, p. 15B.
- Bickerton, R.L. (1988). EAPs notes for a history in progress. Alcohol Health & Research World, 12(4), 316-321.
- Borg, W.R. & Gall, M.D. (1989). Educational research: An introduction (5th ed.). New York: Longman.
- Brewer, L.S. (1988). Employer drug testing: Legal issues. Employee Assistance Quarterly, 4(1), 57-71.
- Burke, T.R. (1988). Alcohol problems in America. A special report to the 1988 National Alcoholism Forum. Washington D.C.: National Council on Alcoholism Inc.
- Chernoff, G. (1989). Drug problem significant to nation's top executives. US Journal, 13(2), 11.
- Culhane, Charles. (1987). NIDA to certify drug testing laboratories. US Journal, 11(4), 1.
- Culhane, Charles. (1988). NIDA: On-the-job drug use picture bleak. US Journal, 12(10), 11.

- Culhane, Charles. (1988). DOT orders massive civilian drug tests. US Journal, 12(12), 18.
- Culhane, Charles. (1989). Feds nab 200 users. US Journal, 13(5), 1, 11.
- Drexler, M. (1990). Employee drug-testing enters mainstream. Des Moines Register, pp. 1C, 3C.
- DuPont, R.L. (1986). Should drug testing in the workplace be mandatory? US Journal, 10.
- Elkins, M. (1986). Corporate dilemma: drugs and alcohol in the workplace. Air Wisconsin, 21-22, 31, 34-35, 42.
- Elliott, F.J. & Hasty, R.E. (1985). Drug abuse in industry - what does it cost and what can be done? Drug Abuse Newsletter, 21, 1-6.
- Elliott, F. (1987). Industry's costly curse. Industry, 1.
- Epstein, H.V., & Perryman, W.J. (1985). An employee assistance curriculum: The ultimate collaborative function. A paper presented at the Annual Conference on Occupational Social Work - National Association of Social Workers, Boston, MA.
- Etherington, T.E. (1986). Addicts' needs are the same as other convalescents. The Journal, 15(10), 4.
- Evans, D.G. (1985). Alcohol and drug testing in industry. US Journal, 9(2), 7, 21.
- Feuer, D. (1987). Workplace issues: Testing, training and policy. Training, 24(10), 66-72.
- Flowers, C. (1986). Alcoholic executives protected to death. US Journal, 4.
- Gam, J., Sauser, W.I., Evans, K.L., & Lair, C.V. (1985). Implementing an employee assistance program. Journal of Employment Counseling, 20(2), 61-69.
- Gam, J., Sauser, W.I., Evans, K.L., & Lair, C.V. (1983). The evaluation of an employee assistance program. Journal of Employment Counseling, 20(3), 99-106.
- Good, R.K. (1986). Employee assistance. A critique of three corporate drug abuse policies. Personnel Journal, 65(2), 96-98, 101.

- Hanson, D. (1986). Drug abuse testing programs gaining acceptance in workplace. C & EN, 7-14.
- Hogler, R.A. (1987). Substance abuse in the workplace: Readings in the labor-management issues. University Park: Pennsylvania State University/Department of Labor Studies and Industrial Relations.
- Horton, T. (1988). Drugs in the workplace. Observer, 10(2), 1.
- Kaplan, R.K. (1986). Pre-employment drug screening: Does it pass the test? CPC Journal, Fall, 28-34.
- Kaplan, R.K. (1989). Surveying our legal environment. CPC Journal, Fall, 41-45.
- Kaplan, R.K. (1990). The legal scene to come: The gray nineties. CPC Journal, Winter, 47-49.
- Khowais, R. (1985). Drug abuse growing among executives. Boston Business Journal, 19-21.
- Laign, J. (1988). Rehab centers say no to staff testing. US Journal, 12(1), 16.
- Langlois, K.M. (1987). Legal questions loom over workplace drug testing. US Journal, 11(7), 8.
- Legal Action Center. (1989). The drugfree workplace act (Title V, Substitute D of P.L. 100-690). New York, New York: Legal Action Center.
- Levine, H.Z. (1985). Employee assistance programs. Personnel, 62(4), 14-19.
- Lindquist, V.R. (1987). Employment trends for college graduates in business. Evanston, Illinois: Placement Center of Northwestern University.
- Lindquist, V.R. (1988). Employment trends for college graduates in business. Evanston, Illinois: Placement Center of Northwestern University.
- Lindquist, V.R. (1989). Employment trends for college graduates in business. Evanston, Illinois: Placement Center of Northwestern University.
- McClain, M.E., & Pegg, L.E. (1990). Is employee testing legal? AMA Journal, 5(1), 2-7.
- McClellan, K. (1987). EAPs vary in emphasis. US Journal, 11(8), 9.

- McConnell, H. (1984). Business must fare realities of drug culture. The Journal, 13(2), 1.
- McConnell, H. (1986). Urine testing along does not a drug police make: Dogoloff. The Journal, 15(11), 5.
- Meacham, A. (1987). Drug testing hotline opens. US Journal, 11(2), 10.
- National Institute on Drug Abuse. (1983). Employer's guide to the employment of former drug and alcohol abusers. Rockville, MD: Department of Health and Human Services.
- National Institute on Drug Abuse. (1987). Interdisciplinary approaches to the problem of drug abuse in the workplace. Washington D.C.: U.S. Department of Health and Human Services.
- National Institute on Drug Abuse. (1989). Workplace drug abuse policy considerations and experience in the business community (ADM 89-1610). Bethesda, Maryland: Department of Health and Human Services.
- O'Hara, K., & Backer, T.E. (1989). Index of survey research studies on workplace drug abuse and eaps. Employee Assistance Quarterly, 4(3), 79-101.
- Partridge, R.W., & Reed, M.C. (1980). Alcohol and drug problems in the workplace. Journal of Psych Drugs, 12(11), 71-72.
- Podolsky, D.M., & Richards, D. (1985). Investigating the role of substance abuse in occupational injuries. Alcohol Health and Research World, 9(4), 42-45.
- Presnall, L.F. (1962). Alcoholism - an employee health problem. Address delivered at the Ninth Annual Pacific Northwest Occupational Health Conference (pp. 1-11). Portland, Oregon: National Council on Alcoholism.
- Roman, P.M., & Blum, T.C. (1989). Alcohol problem intervention in the workplace. Alcohol Health & Research World, 13(4), 375-380.
- Saey, T.A., & Beck, T.D. (1984). Alcoholism among college students. Journal at College Student Personnel, 25, 90-92.
- Schuster, C.R., Weihenmayer, E.A., & Mahoney, J. (1986). Drug abuse in the workplace. Hearing before the Select Committee on Narcotics Abuse and Control, House of Representatives, Ninety-Ninth Congress, Second Session (May 8). Washington D.C.: Congress of the U.S.

- Shahandeh, B. (1985). Drug and alcohol abuse in the workplace: Consequences and countermeasures. International Labour Review, 124(2), 207-213.
- Sheetz, L.P. (1990). A study of business, industries, governmental agencies, and educational institutions employing new college graduates. East Lansing, Michigan: Michigan State University.
- Spotlight. (1989). Legal issues (ISSN 0162-1068). Bethlehem, Pennsylvania: College Placement Council.
- SPSS Inc. (1988). SPSS-X Introductory Statistics Guide. New York: McGraw Hill.
- Staff. (1987, December). Screening helps battle drug abuse on the job. The Advisor, p. 1.
- Staff. (1988, July). Workers, drugs, and alcohol: The mix that must be stopped. Chemical People Newsletter, p. 10.
- Staff. (1988). Drug abuse on the job. Bottom Line, 8(4), 35-36.
- Staff. (1989). A checklist of behaviors associated with alcoholism on the job. Chemical People Newsletter, 10.
- Staff. (1989). Alcohol, other drugs, and fatal work-related injuries. Addictions Alert, 2(11), 44.
- State and Local Government Labor-Management Committee. (1988). Joint solutions to substance abuse: Public sector employee assistance programs. Washington D.C.: Labor-Management Committee.
- Staudenmeier, W.J. (1987). Context and variation in employer policies on alcohol. The Journal of Drug Issues, 17(3), 225-271.
- Staudenmeier, W.J. (1989). Contrasting organizational responses to alcohol and illegal drug abuse among employees. The Journal of Drug Issues, 19(4), 451-471.
- Stone, K., & Thompson, J.R. (1987). Drug testing: A national controversy. Journal of Drug Education, 34(3), 70-79.
- U.S. Department of Health and Human Services. (1987). Drug abuse in the workplace. Washington, D.C.: The Secretary of Health and Human Services.

U.S. Department of Labor. (1989). What works: Worplaces without drugs. Washington, D.C.

Walsh, D.C., & Kelleher, S.E. (1987). Preventing alcohol and drug abuse through programs at the workplace. Rockville, MD: Office of Disease Prevention and Health Promotion.

Warren, R.D., Kemis, M.R., & Abou-Dagga, Sanna. (1991). Using statistical procedures for applications in education. Ames, Iowa: Research Institute for Studies in Education, College of Education.

Wrich, J.T. (1986). The impact of substance abuse at the workplace. Corporate strategies for controlling substance abuse (pp. 29-42). New York: The Conference Board.

Zeese, K.B. (1988). Drug testing legal manual. New York, New York: Clark Boardman Company, Ltd.

Zimmerman, R. (1986). Fairness, accuracy enhance acceptance. US Journal, 10(11), 12.

Zimmerman, R. (1987). Labor unions oppose worksite searches, urine drug testing. US Journal, 11(4), 1, 23.

Zimmerman, R. (1988). Companies cutting costs with outpatient treatment. US Journal, 12(8), 12-13.

APPENDIX A: SURVEY INSTRUMENT

We need fifteen minutes of your time to complete the enclosed survey. You may find it helpful to seek assistance from other human resources colleagues in completing the alcohol/drug testing and employee assistance programs sections.

Please complete and return the survey in the enclosed postage paid envelope by August 31, 1990. A summary of results will be available upon completion of the study. Thank you in advance for your cooperation and assistance.

Career Development and Placement
Business Administration/Sciences & Humanities
Attn: Sally Walker
224 Engineering Annex
Iowa State University
Ames, IA 50011

DEMOGRAPHIC INFORMATION:

1. What is the total number of employees at your company/organization? (Please check appropriate response.)

<input type="checkbox"/> Less than 50	<input type="checkbox"/> 251 to 500
<input type="checkbox"/> 50 to 100	<input type="checkbox"/> 501 to 1,000
<input type="checkbox"/> 101 to 250	<input type="checkbox"/> Over 1,000

2. What is the location of your home office? (Please provide.)

_____ city _____ state

3. What is/are the location(s) of your branch office(s)? (Please provide.)

_____ city	_____ state
_____ city	_____ state
_____ city	_____ state

4. How many employees (1989-1990 college graduates) did your company hire during the 1989-1990 recruitment season? (Please check appropriate response.)

<input type="checkbox"/> Less than 10	<input type="checkbox"/> 31 to 40
<input type="checkbox"/> 11 to 20	<input type="checkbox"/> 41 to 50
<input type="checkbox"/> 21 to 30	<input type="checkbox"/> More than 50

5. What percentage of new hires (1989-1990 college graduates) were females?

Females:

<input type="checkbox"/> Less than 20%	<input type="checkbox"/> 41 to 50%
<input type="checkbox"/> 21 to 30%	<input type="checkbox"/> More than 50%
<input type="checkbox"/> 31 to 40%	

ALCOHOL AND DRUG TESTING:**PRE-EMPLOYMENT ALCOHOL AND/OR DRUG TESTING**

(Please check appropriate responses.)

6. Does your organization perform pre-employment alcohol and/or drug testing?

Alcohol ☐ yes

☐ no → (a)

Do you favor implementation of a pre-employment alcohol testing program for your organization?

☐ yes

☐ no

Other Drugs ☐ yes

☐ no → (b)

Do you favor implementation of a pre-employment other drug testing program for your organization?

☐ yes

☐ no

If you answered yes in question 6, please proceed to question 7.

If you answered no in question 6, please answer 6(a), 6(b) and then skip to question 21.

7. Is your company/organization required by law to complete alcohol and/or other drug testing?

Alcohol ☐ yes ☐ no

Other Drugs ☐ yes ☐ no

8. Are tests mandatory?

Alcohol ☐ yes ☐ no

Other Drugs ☐ yes ☐ no

9. Are tests random?

Alcohol _____ yes _____ no

Other Drugs _____ yes _____ no

10. Who administers pre-employment alcohol and/or drug testing?

	Alcohol	Other Drugs
Company Employees	_____	_____
Outside Contractor	_____	_____
Other	_____	_____
If other, please specify	(_____)	(_____)

11. Where are tests analyzed?

	Alcohol	Other Drugs
Company Facilities	_____	_____
Facilities of Outside Contractor	_____	_____
Other	_____	_____
If other, please specify	(_____)	(_____)

12. How are candidates informed about pre-employment alcohol and/or other drug testing?

	Alcohol	Other Drugs
Group Meeting	_____	_____
Individual Meeting	_____	_____
Written Guidelines	_____	_____
Other	_____	_____

If other, please specify _____

13. Do candidates who refuse to complete pre-employment alcohol and/or drug testing remain eligible for employment?

_____ yes

_____ no (please continue with question 15)

14. If candidates refuse to complete pre-employment alcohol and/or drug testing, what options exist for the candidate?

15. What type(s) of testing methods are utilized for drugs?

_____ Immunoassay Tests: if so, what type(s)?

Enzyme Immunoassay Tests (EMIT) _____

Radio Immunoassay Tests (RIA) _____

Fluorescein Polarization Immunoassay
Tests (FPIA) _____

EZ-Screen _____

_____ Thin Layer Chromatography

_____ Color or Spot Tests

_____ Gas Chromatography

_____ High Performance Liquid Chromatography

_____ Mass Spectrometry

_____ Other, please specify _____

16. What biological specimens are utilized?

	Alcohol	Other Drugs		Alcohol	Other Drugs
Urine	_____	_____	Saliva	_____	_____
Blood	_____	_____	Hair	<u>XXX</u>	_____
Breath	_____	_____	Other	_____	_____

If other, please specify _____

17. What substances and/or chemicals do you screen for?

_____ Alcohol	_____ Marijuana
_____ Amphetamines	_____ Methadone
_____ Barbiturates	_____ Methaqualone
_____ Cocaine	_____ Opiates
_____ Danon	_____ Valium
_____ Other If other, please specify _____	

18. If initial screening is positive, what additional tests do you do?

Alcohol _____

Other Drugs _____

19. If initial screening and necessary additional tests are positive, what impact does this have on individual's candidacy? Please indicate procedures for alcohol and other drugs.

Alcohol _____

Other Drugs _____

20. What mean(s) are utilized to inform candidate of test results?

	Alcohol	Other Drugs
None - test results are maintained confidentially	_____	_____
Letter/memo	_____	_____
Personal meeting with candidate	_____	_____
Telephone conversation with candidate	_____	_____
Other	_____	_____

If other, please specify _____

ALCOHOL AND/OR DRUG TESTING FOR CURRENT EMPLOYEES

(Please check all appropriate responses.)

21. Does your organization perform alcohol and/or drug testing with current employees?

Alcohol _____ yes

_____ no → (a)

Do you favor implementation of an alcohol testing program for your organization?

_____ yes

_____ no

Other Drugs _____ yes

_____ no → (b)

Do you favor implementation of an other drug testing program for your organization?

_____ yes

_____ no

If you answered yes in question 21, please proceed to question 23.

If you answered no in question 21, please answer 21(a), 21(b) and then skip to question 36.

22. Is your company/organization required by law to complete alcohol and/or other drug testing?

Alcohol ☐ yes ☐ no

Other Drugs ☐ yes ☐ no

23. Are tests mandatory?

Alcohol ☐ yes ☐ no

Other Drugs ☐ yes ☐ no

24. Are tests random?

Alcohol ☐ yes ☐ no

Other Drugs ☐ yes ☐ no

25. Who administers alcohol and drug testing?

	Alcohol	Other Drugs
Company Employees	<input type="checkbox"/>	<input type="checkbox"/>
Outside Contractor	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
If other, please specify	(<input type="text"/>)	(<input type="text"/>)

26. Where are tests analyzed?

	Alcohol	Other Drugs
Company Facilities	<input type="checkbox"/>	<input type="checkbox"/>
Facilities of Outside Contractor	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
If other, please specify	(<input type="text"/>)	(<input type="text"/>)

27. How are employees informed about alcohol and/or drug testing?

	Alcohol	Other Drugs
Group meeting	_____	_____
Individual meeting	_____	_____
Written guidelines	_____	_____
Other	_____	_____

If other, please explain _____

28. Do employees who refuse to complete alcohol and/or drug testing remain employed?

_____ yes

_____ no (please continue with question 31)

29. If employees refuse to complete alcohol and/or drug testing, what options exist?

30. What type(s) of testing methods are utilized for drugs?

_____ Immunoassay Tests: if so, what type(s)?

Enzyme Immunoassay Tests (EMIT) _____

Radio Immunoassay Tests (RIA) _____

Fluorescein Polarization Immunoassay
Tests (FPIA) _____

EZ-Screen _____

_____ Thin Layer Chromatography

_____ Color or Spot Tests

_____ Gas Chromatography

_____ High Performance Liquid Chromatography

_____ Mass Spectrometry

_____ Other: please explain _____

31. What biological specimen(s) are utilized?

	Alcohol	Other Drugs	Alcohol	Other Drugs
Urine	_____	_____	Saliva	_____
Blood	_____	_____	Hair	<u>XXX</u>
Breath	_____	_____	Other	_____

If other, please specify _____

32. What substances and/or chemicals do you screen for?

_____ Alcohol	_____ Marijuana
_____ Amphetamines	_____ Methadone
_____ Barbiturates	_____ Methaqualone
_____ Cocaine	_____ Opiates
_____ Danon	_____ Valium
_____ Other If other, please specify _____	

33. If initial screening is positive what additional tests do you do?

Alcohol _____

Other Drugs _____

34. If initial screening and necessary additional tests are positive, what impact does this have on individual's employment status? Please indicate procedures for alcohol and other drugs.

Alcohol _____

Other Drugs _____

35. What mean(s) are utilized to inform employee of test results?

	Alcohol	Other Drugs
None - test results are maintained confidentially	_____	_____
Letter/memo	_____	_____
Personal meeting with employee	_____	_____
Telephone conversation with employee	_____	_____
Other	_____	_____

If other, please specify: _____

EMPLOYEE ASSISTANCE PROGRAMS:

(Please check all appropriate responses.)

36. Does your company/organization currently have an Employee Assistance Program (EAP) related to alcohol and/or other drugs?

Alcohol	_____ yes	
	_____ no → (a)	Would your company/organization like to implement an EAP related to alcohol?
		_____ yes
		_____ no
Other Drugs	_____ yes	
	_____ no → (b)	Would your company/organization like to implement an EAP related to other drugs?
		_____ yes
		_____ no

If you answered yes in question 36, please proceed to question 37.

If you answered no in question 36, please answer 36(a), 36(b) and then skip to question 46.

37. How long has the EAP related to alcohol and/or others drugs been in existence?

	Alcohol	Other Drugs
Less than 2 years	_____	_____
3 to 5 years	_____	_____
6 to 8 years	_____	_____
More than 9 years	_____	_____

38. Who provides EAP related to alcohol and/or other drugs?

_____ Company employees _____ Outside contractor
 _____ Both

39. Who absorbs the costs of the EAP related to alcohol and/or other drugs?

	Alcohol	Other Drugs
100% employer subsidized	_____	_____
100% employee subsidized	_____	_____
Co-Contribution	_____	_____

40. Did the EAP related to alcohol and/or other drugs begin after drug testing began?

Alcohol _____ yes _____ no

Other Drugs _____ yes _____ no

Do not perform drug testing _____

41. How many employees participated in the EAP related to alcohol and/or other drugs within the past three years?

	Alcohol	Other Drugs
Less than 10	_____	_____
11 to 20	_____	_____
21 to 30	_____	_____
31 to 40	_____	_____
41 to 50	_____	_____
More than 50	_____	_____

42. What percentage of employees participating in the EAP related to alcohol and/or other drugs in the past three years were males and females?

Males:	Alcohol	Other Drugs	Females:	Alcohol	Other Drugs
Less than 20%	_____	_____	Less than 20%	_____	_____
21 to 30%	_____	_____	21 to 30%	_____	_____
31 to 40%	_____	_____	31 to 40%	_____	_____
41 to 50%	_____	_____	41 to 50%	_____	_____
51 to 75%	_____	_____	51 to 75%	_____	_____
76 to 100%	_____	_____	76 to 100%	_____	_____

43. What outcomes are achieved from the EAP related to alcohol and/or other drugs?

	Alcohol	Other Drugs
Reduction in turnover, reprimand, and suspensions	_____	_____
Average annual sick leave savings	_____	_____
Reduced medical costs of recovered substance abuser	_____	_____
Reduced workers compensation claims	_____	_____
Improved performance	_____	_____
Other	_____	_____
If other, please specify _____		

44. Does your organization support the following?

- _____ Company functions where alcoholic beverages are provided
- _____ Expense account reimbursement for alcoholic beverages
- _____ Expense account reimbursement without itemized dollar amounts
- _____ Other

If other, please specify _____

45. Please rate each of the statements below as it relates to your company's EAP related to alcohol and/or other drugs.

	Low			High	
	1	2	3	4	5
We have well-developed written policies and procedures concerning employee utilization of the EAP.					
We support employee participation in twelve step programs (Alcoholics Anonymous, Narcotics Anonymous, etc...) and after care programs.	1	2	3	4	5
We feel that the responsibility for dealing with the problem lies solely with employee, independent of the employer.	1	2	3	4	5
We provide paid leave from work while an employee completes inpatient treatment.	1	2	3	4	5
We believe that self referral is necessary for success in dealing with the problem.	1	2	3	4	5
We support <u>total</u> employee confidentiality concerning utilization of the EAP.	1	2	3	4	5
We believe that an employee's participation in support groups is the most effective rehabilitative approach to substance abuse problems.	1	2	3	4	5
We believe in voluntary EAP participation and avoid mandatory referral.	1	2	3	4	5

	Low			High	
	1	2	3	4	5
We support a therapy related approach to substance abuse problems.					
We believe informal procedures allow for feasibility and freedom for employees.	1	2	3	4	5
We believe that an employee's financial contribution is crucial to committed participation in the EAP.	1	2	3	4	5
We believe that there is a definite beginning and end for the employee dealing with the problem.	1	2	3	4	5
We believe that strong support and endorsement from top management is essential to a successful EAP.	1	2	3	4	5
We support paid leave from work while an employee participates in outpatient treatment.	1	2	3	4	5
We believe that company referral is necessary for success in dealing with the problem.	1	2	3	4	5
We believe that individual counseling is the most effective rehabilitative approach to substance abuse problems.	1	2	3	4	5
We support involvement from supervisors and "significant others" in dealing with those employees with substance abuse problems.	1	2	3	4	5
We support mandatory employee involvement.	1	2	3	4	5
We provide total financial support for employee participation in rehabilitative substance abuse programs.	1	2	3	4	5
We believe that participation in an educational program is the most effective rehabilitative approach to substance abuse problems.	1	2	3	4	5

Other factors which we feel are important include:

46. Please enclose copies of policies, procedural guidelines and/or promotional materials related to pre-employment alcohol and/or drug testing, alcohol and/or drug testing for current employees, and/or EAPs specifically geared toward alcohol and/or drugs. Additional comments may also be provided in the space below.
47. What kinds of information do you feel college students should be provided regarding pre-employment alcohol and/or other drug testing?
48. What other kinds of things can we, as University Placement Officials, do to prepare our students for the job search process?

The university placement officials, at Iowa State University, University of Iowa, and University of Northern Iowa, appreciate the time you have taken to complete this survey.

A pre-paid envelope is enclosed for return.

Career Development and Placement
Business Administration/Sciences & Humanities
Attn: Sally Walker
224 Engineering Annex
Iowa State University
Ames, IA 50011

APPENDIX B: LETTER OF TRANSMITTAL

IOWA STATE UNIVERSITY

August 10, 1990

Dear Employer Representative:

As you are well aware, the recruitment process continues to change, with the emergence of new issues and concerns. One significant concern is alcohol/drug testing as it relates to candidates in the job search process. As part of the educational process among the Iowa Regents institutions, one of our Ph.D. students is completing her dissertation on this topic.

We believe that the dissertation will yield information of use to our students, as well as those employers who recruit on our campuses. Please be assured that responses will be treated confidentially. Survey data will not identify policies of specific employers.

In order to be successful in compiling this information, we need 15 minutes of your time to complete the enclosed survey. You may find it helpful to seek assistance from other human resources colleagues in completing the alcohol/drug testing and employee assistance programs sections.

Please complete and return the survey in the enclosed postage paid envelope by August 31, 1990. A summary of results will be provided upon completion of the study. Thank you in advance for your cooperation and assistance.

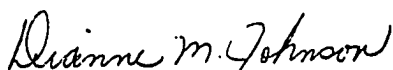
Sincerely,




Dan Blanco
Coordinator
Business Administration/
Sciences and Humanities Placement
Iowa State University



Pat Hurley
Acting Director
Business and Liberal Arts Placement
University of Iowa



Diane Johnson
Recruitment Coordinator
Placement and Career Services
University of Northern Iowa



Sally Walker
Ph.D. Candidate
Project Coordinator
Iowa State University

APPENDIX C: INITIAL FOLLOW-UP POSTCARD

Dear Personnel Representative:

Last month we requested your assistance in completing a survey regarding your assistance in completing a survey regarding alcohol/drug testing as it relates to candidates in the job search process. If you have mailed the survey recently, we want to express our thanks to you. If you have not mailed your survey, we would appreciate it if you would complete it and drop it in a mailbox.

Hope your recruitment season is off to a good start!

Sincerely,

Dan Blanco	Sally Walker
ISU Placement Coordinator	Project Coordinator
Colleges of Business Administration/Liberal Arts & Sciences	
515-294-2542	

APPENDIX D: FINAL REMINDER POSTCARD

Dear Personnel Representative,

We would really appreciate your assistance in completing the survey mailed to you in August. Your contribution will be significant in enabling us to complete the study on alcohol/drug testing as it relates to candidates in the job search process.

If you have mailed the survey recently, we want to express our thanks to you. If you have not mailed the survey, please complete it and drop it in a mailbox.

Best wishes for a pleasant fall.

Sincerely,

Dan Blanco (515) 294-2542

ISU Placement Coordinator

Colleges of Business Administration/Liberal Arts & Sciences

Sally Walker

Project Coordinator