

III. Florida's Drug-Free Workplace Program

Despite the growth of drug awareness and testing programs, surveys show that a small, but notable, proportion of the working-age population continues to use illegal drugs on a regular basis. The 1999 Drug Testing Index published by Quest Diagnostics reports that positive results were found in 4.6% of drug tests conducted in 1999, slightly lower than the 4.8% figure reported in 1998. Detection of marijuana accounted for the majority of positive results, and for-cause tests produced the highest positive rates.¹

The National Household Survey on Drug Abuse² for full-time workers aged 18-49 found the following:

- Of all illicit drug users age 18-49, 70% were employed full-time.
- Of the population age 18-49, 7.7% of full-time workers report illicit drug usage.
- Rates of drug usage are relatively higher for workers in small establishments.
- Rates of drug usage are over twice as high in workplaces that do not have a written policy on drug or alcohol use.
- Occupational groups with the lowest rates of drug use report the highest rates of drug information and policies available in the workplace.
- A much higher proportion of drug users than non-users said that they would be less likely to work for an employer who tests for drug usage upon hiring.
- Workers who reported current drug usage were approximately twice as likely to have worked for three or more employers, voluntarily left an employer in the past year, or skipped at least one day of work in the past month.

The concept of a drug-free workplace (DFW) was developed in response to concerns about the effect of illegal drugs and alcohol on workplace productivity and safety. While testing is usually part of a DFW policy, a complete DFW program also includes a written policy, drug and alcohol abuse prevention training, continuing education, and an employee assistance program (EAP).³

Many government programs in the war on drugs focus on the supply side of the illegal drug market. By contrast, DFW programs attempt to address the *demand* side by stressing the job security and income risks associated with drug and alcohol usage. From an employer's perspective, the cost of implementing a DFW program will be weighed against the possible benefits. External forces influencing participation will include the nature of the local, and possibly regional, labor market. Internal factors will include the existence of risk-prone positions with respect to physical and/or fiscal responsibilities. The amount of a legally mandated premium reduction will likewise be of concern to insurers if the loss of premium cannot be justified by an accompanying decline in risk, as measured by the frequency and unit cost of workers' compensation claims. The U.S. Department of Labor lists the following examples of risk-prone positions: positions performing key functions (e.g., technicians monitoring essential equipment such as computers), positions where alcohol or drug abuse would be difficult to detect (e.g., traveling or other off-site workers), safety sensitive positions (e.g., heavy machinery operators or security guards), and security sensitive jobs with responsibility for ideas, products, inventory, cash, proprietary material, or confidential documents.

Two pieces of legislation relating to drug-free workplace programs were proposed in the 2000 legislative session, but neither progressed very far. House Bill (HB) 0195 and a companion Senate Bill (SB) 0868 would have required certain contractors to implement a DFW program under certain conditions. HB 1519 proposed more extensive changes to existing DFW provisions. It transferred the drug-free workplace requirements for public employers from s. 112.0455, F. S., and the requirements for private employers from chapter 440, F.S., to chapter 442, F. S., eliminating the duplicate provisions of the two programs and combining them into one act.⁴ The Office of Drug Control under the Executive Office of the Governor was designated as the umbrella agency for the purpose of coordinating implementation of the program among agencies and departments. The bill also revised provisions relating to drug testing standards and, importantly, provided for an increased premium discount of 10% for workers' compensation insurance.

These legislative initiatives and their eventual rejection attest to both the enduring interest in DFW programs and the hesitancy to proceed in an area having so many unknowns. The public perception that drug abuse is a pervasive social problem readily translates into a desire on the part of policymakers to adopt effective countermeasures. The problem, however, is to separate what is truly effective from what merely *seems* likely to be effective. This chapter, after first providing some background information on the Drug-Free Workplace Program, compiles and examines data characterizing employer participation and injury outcomes, both frequency and costs. The aim of the analysis is to answer the following questions.

- Do DFW employers display different characteristics from others by size, location, occupational patterns, or industry type?
- Do DFW employers show a pattern of consistency in renewal of DFW certification?
- Do DFW employers differ from others in lost-time injury rates and per-claim benefit costs?

- Does a DFW program result in a noticeable reduction in injury rates and benefit costs within the first years of implementation?

Answers to these questions will lay the groundwork for specific policy considerations.

Background

Florida's DFW program, enacted in 1990, was among the first in the nation. A few states established requirements concerning drug-free workplace programs that same year. Certain aspects of what is now generally accepted policy were introduced even earlier. For example, an amendment to the South Carolina statute in 1988 stated that employers were required to adopt and enforce safety rules and regulations. Employees who neglected to comply with safety rules and regulations could be denied compensation for their injuries. The concept of benefit denial or reduction was later adopted by many other states with respect to on-the-job intoxication or impairment due to drug usage.

In 1989 Delaware passed a provision permitting employers who promote and maintain safety in the workplace to be charged reduced premiums as an incentive. This likewise became a facet of subsequent DFW laws on other states. Florida itself broached the topic of drug usage in 1989. A new provision that year authorized an employer to require employees to submit to alcohol or drug tests if the employer suspected that alcohol intoxication or the use of a non-prescription drug caused an injury. If drug abuse was proven, an employer was required to give 25% of the employee's weekly indemnity benefits, up to \$5,000, to a drug abuse program for rehabilitation of the employee. Another Florida provision, similar to South Carolina's, passed in 1989 authorizing a 25% reduction in indemnity benefits for injuries caused by the willful refusal of the employee to use a safety appliance provided by the employer. The five-percent pre-

mium credit for participation in the program became effective at the beginning of 1992.

A number of states have provisions for establishing certified drug-free workplace policies. Employer participation is voluntary except in the case of Texas, where a 1990 provision has required covered employers with 15 or more employees to adopt a policy designed to eliminate drug abuse in the workplace. Premium discounts are not addressed in the Texas statute. Interestingly enough, however, Texas is the only state where workers' compensation coverage itself is optional for private sector employers of this size. Other states offer financial incentives for implementation of a drug-free workplace program, usually in the form of a workers' compensation premium discount or other reduction. An exception is Louisiana, where employers may be eligible for a credit against their state income tax to offset some of the expenses incurred for substance abuse treatment services. Many of the premium reduction laws were enacted or amended in 1996 or later.

Like Florida, most states having DFW financial incentives, including Alabama, Mississippi, South Carolina, Tennessee, and Washington, offer a five-percent premium discount or credit. Notably, however, the Washington provision sunsets at the end of 2000.⁵ In Hawaii and Virginia, insurers may offer premium reductions of up to five percent. Premium discounts in Virginia may last up to four years; the exact percentage of the reduction is not regulated. For Arkansas, the credit shall be at least five percent unless the Insurance Commissioner determines that five percent is actuarially unsound. In 1997 Georgia increased the premium discount to 7.5%, with the duration limited to eight years; the state's original 1993 provision was for a five-percent discount to last four years. Ohio offers a three-tier program, with premium reductions from six to 20 percent, with higher discounts tied to the level of participation and program requirements. Ohio employers may be eligible for four or five years of discount. In Idaho, an employer may receive a deduction if qualifying, but the amount of the discount

and terms for qualification are left up to the insurers. (See appendix A.)

With respect to drug testing in general, states vary widely in the types of testing that are permitted, although procedures for testing, where permitted, are subject to regulation. One of the hallmarks of Florida's original law was that a positive post-injury drug test would result in *automatic* denial of workers' compensation benefits if the employer has a drug-free workplace program. Subsequent case law and legislation narrowed the irrebuttable aspect of this provision. Under the original statute, benefits could be denied to a worker who, despite a positive drug test, could demonstrate a complete lack of fault in the workplace incident resulting in injury.

A review of state laws revealed that more than 40 other states have a similar policy of denying or reducing workers' compensation benefits in some cases where an employee is intoxicated or tests positive for drug usage. In other states, such denial is not predicated on a DFW program. Several states merely reduce workers' compensation benefits rather than denying them entirely, including Colorado, Idaho, Missouri, and Wisconsin. Washington is an exclusive remedy state and does not reduce or deny benefits for injuries in which drugs or alcohol are involved. Most states specify that alcohol or drug usage must be the proximate or sole cause of injury, or that the presumption of injury causation is rebuttable and/or the burden of proof is on the employer. However, most do not specify that, in order for benefits to be denied or reduced, the employer must have a drug-free workplace or other drug testing policy.

States also vary widely in the types of drug testing permitted, although the *procedures* for permissible drug testing generally are carefully delimited. Also, a small number (including California, Georgia, Illinois, and South Carolina) require that subcontractors to the state have some form of drug policy. In Florida, existence of a drug-free workplace policy may serve as a tiebreaker in cases of two or more contract bids of

equal merit.

In Florida's Division of Workers' Compensation, it is estimated that a third to one-half of all incoming calls on the employer hotline are in reference to the drug-free workplace program. As a result, the division's website has been enhanced to respond to many of the frequently asked questions, or FAQ's.⁶

Since anecdotal evidence frequently plays a role in public policy discussions, the division queried members of the division's Advisory Council late in 1999. The four groups surveyed were the Workers' Compensation Administration, Employer, Employee, and Self-Insurance Advisory Committees. Of the 49 questionnaires sent out, 14 responses were received to the following questions.

What has been the effect of DFW programs on employee drug usage? Half of the respondents admitted that they didn't know, but the impression among others was that employee drug usage was much lower.

What has been the effect of DFW programs on workplace injury rates? Again, many (six of 14) replied that they didn't know. Other committee members perceived that, although drug usage was much lower, workplace injury rates were only slightly lower. It is probably not surprising that no respondent indicated a perception that drug usage or workplace injury rates were *higher* under a DFW program.

Is the DFW program cost effective? Among those expressing an opinion on this topic, there was unanimous feeling that such a program is at least somewhat cost-effective.

Is the 5% premium discount sufficient incentive to prompt employer participation? A slight majority expressed disagreement with this statement, and no one indicated strong agreement. Several written comments recommended a larger discount.

What are employees' feelings about the program?

Among those responding, the great majority thought that employees were very or somewhat supportive of a DFW program. A couple reported perceptions of mixed feelings, but none reported having an impression that employees were opposed to such a program.

Many respondents candidly noted that they are not totally convinced of the effectiveness of drug-free workplace policy, but among respondents the program appears to be generally uncontroversial, except for some spirited disagreement with appellate court rulings. A few additional comments from advisory committee members are listed below.

- Small employers tend not to take advantage of the program—perhaps too labor intensive for them.
- The entire program is cumbersome, and the courts have made it almost impossible to enforce.
- Define the statutory language “reasonable classification basis” when referring to the “option” of pre-employment testing.
- The program should require at least 10% of the DFW employer's employees to be randomly tested each year.
- Educate the general public via media, school education, etc. on “one more reason” to avoid drug/alcohol abuse.

Data and Analysis

Some limited research on the use and effectiveness of drug-free workplace programs has been conducted. For example, the division's 1997 *Annual Report* noted an actuarial analysis by the National Council on Compensation Insurance (NCCI) of Florida's drug-free workplace program that was done shortly after its implementation.⁷ The NCCI focused on losses per \$100 payroll for 1991-1993. NCCI found that DFW employers reported higher losses than non-DFW employers. However, DFW employers experienced proportionally greater *declines* in losses

during this period. At this point, no update to these results has been released, although the study did provide an intriguing insight as to the types of actuarial analysis that could be done.

Florida employers who implement a certified DFW program are eligible to receive a 5% premium credit on workers' compensation insurance.⁸ Insurance carriers provide information on DFW participation to the NCCI.⁹ Available data include the policyholder's name, address, federal employer identification number (FEIN), effective and ending dates of the policy, and the governing risk classification¹⁰ code. Each year NCCI provides to the division a data file of policies having an effective date during the previous year. Files of policies effective in 1996, 1997, 1998, and 1999 were available for analysis.¹¹

As a first step, these files were used to derive frequency distributions for DFW policies effective from 1996 through 1999, which were compared to those for lost-time claims. This was done to give a preview of how the characteristics of employers with certified DFW programs may differ from those of covered employers in general. It might be noted that anecdotal evidence would seem to indicate a substantial degree of underreporting of DFW policies to NCCI, based on the number of calls received by the division on this topic and of references to drug testing by employers and in classified ads. However, it is possible for an employer to have a drug awareness or testing program that is not certified for a premium credit. Also, the data exclude self-insured employers. There were slightly more than one hundred self-insured employers that received an assessment credit at some point during this time frame; information on effective and ending dates of credit was not readily available.

A caveat should be noted in making comparisons to lost-time claims. The claims file, from which data on individual injuries are obtained, attempts to capture data on the individual injured worker, e. g., that person's risk classification and the county *where the injury occurred*. On the other hand, the DFW

policyholder file contains corresponding information only for individual employers – in this instance, a single risk classification code and the address *of the company headquarters*. For multi-county employers, this may bias the counts of DFW policies toward the urban counties since company headquarters are more likely to be located in highly populated areas. Similarly, each policyholder record contains only one “governing” risk classification, which will limit the variety of codes reported.

County Location

Seven of Florida's 67 counties dominate the state's economy: Dade (Miami), Broward (Ft. Lauderdale), Palm Beach (West Palm Beach), Hillsborough (Tampa), Pinellas (St. Petersburg), Orange (Orlando), and Duval (Jacksonville). According to estimates from the Office of Labor Market Statistics, Local Area Unemployment Statistics Program, these counties contained 57.1% of the state's employment from 1996 through 1999. These seven counties accounted for over 56.3% of lost-time claims during this period, and were likewise home to the in-state headquarters of 56.3% of certified DFW policyholders. Thus, there does not appear to be a bias in DFW participation toward the most highly populated counties. Further examination of the data for mid-sized counties likewise revealed that the geographic dispersion of DFW policyholders is similar to that of non-DFW employers.

Risk Classification

In examination of the frequency distribution of governing risk classification the most striking finding was that the risk classification type of Automobile Service/Repair Center/Drivers accounted for by far the largest number of DFW policies.¹² Readers of the division's quarterly risk classification bulletin may note that this category has never appeared among the risk classifications having the most injuries. In fact, from

1996 through 1999 it ranked 65th in terms of overall frequency of lost-time claims. This provided the first evidence that there may be notable differences among industries in the percentage of employers obtaining DFW certification. Clerical Office Employees NOC¹³ was the only risk classification ranking in the top ten on both rankings. A number of risk classifications related to construction trades were also listed on both rankings. These occupations are known to be potentially hazardous, and impairment due to drug or alcohol use may pose significant risks of injury.

Continuous Participation in Drug-Free Workplace Programs

Individual NCCI files were matched across the four policy years, allowing for examination of patterns of participation in DFW programs during this period. For the four years combined, there were approximately 14,000 employers with federal employer identification numbers and DFW participation in at least one year. Among these records each one of the 16 possible combinations of DFW participation occurred in at least one percent of the cases. The most frequently occurring combination was of an employer who had a DFW program in 1999, but in none of the previous years, accounting for 25.7% of all records. For the file as a whole, 47.5% of employers had a DFW policy in only one of the four years, 24.4% had a policy during two years, and 15.3% during three years. The remaining 12.8% had DFW programs all four years.

The combined data revealed a notable degree of attrition in policy years 1997 and 1998, but less so in 1999, as shown in Figure B2.1. To illustrate, the figure reveals that 1,592 employers had a DFW program effective in 1998, but not in either 1996 or 1997. Of these 1,592 employers, 1,055 also appeared on the file of DFW policyholders in 1999. Note that unreported records, and missing or miskeyed FEINs, could also contribute to the indicated attrition rate. However, these figures do indicate a surprising de-

gree of either dropping DFW certification or perhaps of incomplete reporting, either of which could call into question the use of the NCCI data for trend analysis. On the other hand, if the data are in fact representative of the participation of all DFW policyholders, this calls into question the effectiveness of a five-percent premium reduction as an incentive for employers to maintain a DFW program. It may be that many employers have not found implementation of a DFW sufficiently effective in reducing the frequency and cost of workplace injuries to warrant continued participation. There may also be a lack of awareness about the need to renew certification each year.

Industry Type

Additional information has recently been made available to the division to allow better comparisons of injury rates by industry. The source data for this analysis is the ES202 quarterly report of employment covered by Unemployment Compensation (UC). Coverage under UC is more comprehensive than for workers' compensation, so a good match of DFW policyholders to UC records should be possible. Federal employer records were deleted from the UC file because state workers' compensation law does not cover them. Also, state and local government records were deleted because there were insufficient numbers of claims matching to DFW policyholder records to provide reliable results. Finally, in order to achieve a more credible match to lost-time claims data, employer records were deleted if their UC-reported files showed monthly employment of less than four during the entire period from 1996 through 1999.¹⁴ That is, this was an attempt to create a file of "probable WC coverage" employers. Thus, even reported employment of four in a single month would cause an employer to be included in the file. Despite the conservative interpretation, this rule excluded a third of the UC database.

Table B2.1 confirms that there are notable differences in DFW participation among industries, with Manufacturing and Construction having the largest

Table B2.1

Private Employers by Industry Type and Drug-Free Workplace Status: 1996-1999

Estimated Number of WC-Covered Private Sector Employers by Major Industry Division*	1996-1999 DFW Program Implementation														
	1996			1997			1998			1999			Four-Year Average		
	Non-DFW	DFW		Non-DFW	DFW		Non-DFW	DFW		Non-DFW	DFW		Non-DFW	DFW	
		#	%		#	%		#	%		#	%		#	%
Agriculture, Forestry, Fishing	7,236	141	1.9%	7,200	133	1.8%	7,410	158	2.1%	7,090	200	2.7%	7,234	158	2.1%
Construction	28,878	1,295	4.3%	28,809	1,193	4.0%	29,395	1,416	4.6%	28,414	2,212	7.2%	28,874	1,529	5.0%
Manufacturing	9,349	626	6.3%	9,381	540	5.4%	9,508	610	6.0%	8,873	826	8.5%	9,278	651	6.6%
Transportation, Communication, Utilities	7,214	263	3.5%	7,491	248	3.2%	7,659	256	3.2%	7,205	356	4.7%	7,392	281	3.7%
Wholesale Trade	16,660	475	2.8%	17,091	480	2.7%	16,790	506	2.9%	15,873	717	4.3%	16,604	545	3.2%
Retail Trade	34,961	713	2.0%	35,541	626	1.7%	35,731	676	1.9%	34,213	831	2.4%	35,112	712	2.0%
Finance, Insurance, Real Estate	13,231	191	1.4%	13,630	187	1.4%	13,956	195	1.4%	13,524	231	1.7%	13,585	201	1.5%
Services	68,399	1,161	1.7%	71,234	1,032	1.4%	72,423	1,173	1.6%	70,080	1,598	2.2%	70,534	1,241	1.7%
TOTAL	188,717	4,885	2.5%	193,864	4,463	2.3%	196,133	5,009	2.5%	188,097	7,006	3.6%	191,703	5,341	2.7%

*Excludes entities other than construction whose monthly employment did not exceed three workers at any time during 1996-1999. Data for Mining are excluded for confidentiality reasons because of the relatively small number of employers. The Total row includes a small number of employers for which industry code was not available.

Source: National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

proportions of DFW policyholders, and Transportation, Communication, and Utilities a distant third. Readers of the division's annual report¹⁵ will note that these are also among the industries having the highest proportion of lost-time injuries. Equally notable is the low overall participation in certified DFW programs, which even in 1999 remained below four percent. This is particularly noteworthy considering the data displayed in Figure B2.1 revealing significant attrition in DFW participation. Together, the data show only a very small base of consistent DFW certified policyholders, possibly as low as one percent of all eligible employers.¹⁶

Size of Employer

Data on average employment from the ES202 file can also be used to test the hypothesis that DFW employers are larger than average. The combined database did permit comparative analysis of size and

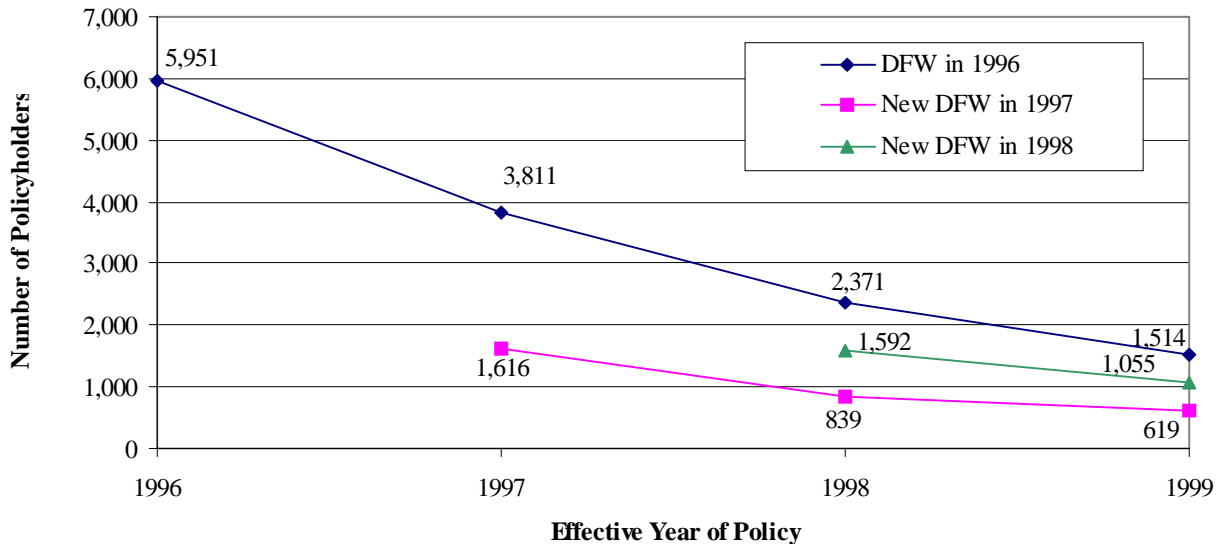
injury rates based on an employer's DFW status, as shown in Table B2.2 for private sector employers. Again, industry detail is shown because employer size varies by industry as well. The data do confirm the hypothesis that DFW employers tend to be much larger than average, approximately twice as large in fact. Of course, a more stringent rule for defining probable workers' compensation coverage than that in the preceding paragraph would give different results, but the difference in average employment is notable.

Employment Covered by DFW Policies

The employment data from the ES202 file can also be used to make a rough estimate of the proportion of WC-covered employees in Florida under a certified DFW program, as shown in Table B2.3. Because of the difference in size of DFW employers, the percentages are much larger than in Table B2.1. Table B2.3 also reflects the growth in DFW policies

Figure B2.1

Continuous Participation in Drug-Free Workplace Programs



Source: National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999

Table B2.2

Average Employer Size by Drug-Free Workplace Status 1996-1999: Private Employers by Industry

Average Employment of Estimated WC-Covered Private Employers: Major Industry Division*	1996-1999 DFW Program Implementation							
	1996		1997		1998		1999	
	Non-DFW	DFW	Non-DFW	DFW	Non-DFW	DFW	Non-DFW	DFW
Agriculture, Forestry, Fishing	19	34	19	32	18	36	20	40
Construction**	9	32	9	33	9	32	9	32
Manufacturing	45	65	46	71	47	70	46	66
Transportation, Communication, Utilities	37	49	37	48	38	53	39	69
Wholesale Trade	16	49	16	44	17	48	17	48
Retail Trade	31	62	32	65	34	60	36	60
Finance, Insurance, Real Estate	28	51	24	53	26	67	29	67
Services	24	82	27	80	28	86	30	112
TOTAL	24	56	25	56	26	57	27	62

*Excludes entities other than construction whose monthly employment did not exceed three workers at any time during 1996-1999. Data for Mining are excluded for confidentiality reasons because of the relatively small number of employers. The Total row includes a small number of employers for which industry code was not available.

**If construction employers were subject to the same selection criteria as other industries, the average non-DFW construction employer size would be 13 for 1996-97 and 14 for 1998-99.

Source: National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

in 1999. This table sheds a more positive light on the question of whether there are enough employers participating in DFW to potentially make a difference in workplace safety at the aggregate level. The previous results showed that only a small percentage of employers have certified DFW policies. However, because of their larger size they are estimated to account for between five and ten percent of WC-covered employment. Note in comparing lost-time injury rates by industry and the percentage of DFW employment in Table B2.3 that Construction has the highest of both proportions and Finance, Insurance, and Real Estate the lowest. This may imply that DFW policyholders could have a greater potential effect on claims reporting than even indicated by their proportion of employment covered by workers' compensation.

Lost-Time Claim Characteristics

As noted above, the larger issue involves quantitative data on any differences in *claims* for injuries under a DFW program versus those that are not.

Cases in the division's lost-time claims file were matched to NCCI data using the employer's FEIN, limiting the number of cases that could be matched. Again, the number of matches to governmental organizations was insufficient to provide reliable results, so further analysis was limited to private sector employers.

Lost-time claims were placed in the following categories of analysis:

- Injuries occurring for employers who had a DFW policy with an effective date from the beginning of 1996 through the end of 1999
- Injuries occurring for employers who did not have a DFW policy effective during this period

Preliminary analysis was also done in considering workplace injuries that occurred *outside the effective dates* of reported DFW policies or *within the first year* of program implementation. However, comparisons based on other variables¹⁷ revealed no significant differences between characteristics of these claims and those of other employers who had a DFW

Table B2.3

Estimated Percentage of WC-Covered Employment Under a Certified Drug-Free Workplace Policy by Industry Type: 1996-1999

Major Industry Division*	1996	1997	1998	1999
Agriculture, Forestry, Fishing	3.4%	3.0%	4.0%	5.4%
Construction	13.9%	13.1%	14.1%	21.7%
Manufacturing	8.8%	8.2%	8.7%	11.8%
Transportation, Communication, Utilities	4.6%	4.1%	4.5%	7.9%
Wholesale Trade	7.9%	7.0%	8.0%	11.0%
Retail Trade	3.9%	3.5%	3.3%	3.9%
Finance, Insurance, Real Estate	2.5%	2.9%	3.4%	3.8%
Services	5.4%	4.1%	4.8%	7.9%
TOTAL	5.7%	5.0%	5.4%	7.9%

*Excludes entities other than construction whose monthly employment did not exceed three workers at any time during 1996-1999. Data for Mining are excluded for confidentiality reasons because of the relatively small number of employers. The Total row includes a small number of employers for which industry code was not available.

Source: National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

policy during the four-year period. The only differences involved the issue of whether or not the employer had a DFW program effective *at any time* during the four-year period. For the remaining claims analysis in this report, the terms “DFW employer” and “non-DFW employer” will refer to those employers that, respectively, did or did not have at least one certified DFW policy with an effective date between January 1, 1996, and December 31, 1999.

Per-Claim Costs

To further examine differences in lost-time claims under the different DFW indicators, average indemnity, medical, and settlement amounts were analyzed. This was done to provide a preliminary response to the policy question of whether the implementation of a DFW policy has an effect on per-claim benefit amounts. T-tests were done to determine if

there was a statistically significant difference in average benefits paid. Since benefits are reported cumulatively, it was necessary to segment the database, grouping claims by year of injury. The results are summarized in Table B2.4. The “<” symbol denotes cases where the difference in means is *statistically significant at a five percent level of confidence*. The results show a distinct, statistically significant, difference for almost every year in total indemnity and medical benefits. Differences in settlement amounts were not statistically significant in any year, however.

An unexpected result, at first glance, is that benefits paid for injuries under DFW employers were generally *higher* than benefits paid for non-DFW employees.¹⁸ Recall, however, that the distribution of DFW employers by industry type is very different from that of other employers. This is an important observation because mining, construction, and, to a lesser extent, manufacturing report the most expensive inju-

Table B2.4

Average Benefits for Lost-Time Claims by Year of Injury and Employer’s Drug-Free Workplace Status

Year of Injury	Type of Benefits	Non-DFW Employer	Statistical Significance*	DFW** Employer
1996	Settlement Award	\$23,592		\$23,272
	Total Indemnity	\$4,804	<	\$5,297
	Total Medical	\$8,050		\$7,980
1997	Settlement Award	\$19,027		\$19,210
	Total Indemnity	\$4,251	<	\$4,826
	Total Medical	\$6,914	<	\$7,872
1998	Settlement Award	\$14,418		\$15,250
	Total Indemnity	\$3,420	<	\$3,920
	Total Medical	\$5,665	<	\$6,815
1999	Settlement Award	\$9,954		\$10,890
	Total Indemnity	\$2,116	<	\$2,277
	Total Medical	\$3,652	<	\$4,582

*An entry in this column means there is a statistically significant difference in the means at a 95% level of confidence.

**An employer with a DFW policy effective any time in 1996-1999

Source: Division of Workers’ Compensation Claims File as of February 29, 2000, and National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999

ries in terms of benefit costs. Since DFW employers are disproportionately represented in these divisions, is it possible that the variation in benefits payments is due primarily to differences in industry composition? Table B2.5 displays the results of t-tests of average benefits after controlling for both year of injury and industry division.

These results verify that the differences in average benefits shown in Table B2.3 above can be largely accounted for by the difference in industry classifications between the two employer comparison groups. That is, in the data presented thus far, there is not a significant, consistent difference in benefit costs between DFW and non-DFW employers. The most remarkable finding was the difference in patterns for

Table B2.5

Average Benefits for 1996-1999 Lost-Time Injuries by Major Industry Division and Drug-Free Workplace Status

Major Industry Division	Type of Benefits	Non-DFW		Statistical Significance*	DFW	
		Count	Mean		Count	Mean
Agriculture, Forestry, & Fishing	Settlement Award	2,096	\$19,077	>	332	\$15,598
	Total Indemnity	7,912	\$3,370		1,227	\$3,394
	Total Medical	7,967	\$7,284		1,220	\$6,247
Mining	Settlement Award	66	\$24,807		27	\$17,325
	Total Indemnity	298	\$4,447		125	\$5,143
	Total Medical	289	\$9,264		126	\$6,964
Construction	Settlement Award	5,255	\$23,591	>	2,590	\$23,161
	Total Indemnity	18,412	\$5,853		8,806	\$5,428
	Total Medical	18,228	\$8,974		8,635	\$8,484
Manufacturing	Settlement Award	3,698	\$21,821	>	1,127	\$19,376
	Total Indemnity	16,196	\$4,210		4,272	\$4,240
	Total Medical	15,872	\$7,198		4,224	\$6,927
Transportation, Communication, & Utilities	Settlement Award	2,085	\$23,170	<	454	\$23,047
	Total Indemnity	14,242	\$4,400		1,922	\$4,511
	Total Medical	14,217	\$5,511		1,826	\$6,498
Wholesale Trade	Settlement Award	1,704	\$19,125		548	\$19,267
	Total Indemnity	7,635	\$3,970		2,209	\$3,848
	Total Medical	7,440	\$6,360		2,163	\$7,551
Retail Trade	Settlement Award	7,170	\$16,082	<	910	\$17,133
	Total Indemnity	33,972	\$2,864		3,362	\$4,079
	Total Medical	33,079	\$5,306		3,349	\$6,332
Finance, Insurance, & Real Estate	Settlement Award	1,351	\$21,205		180	\$18,925
	Total Indemnity	5,182	\$4,151		629	\$4,068
	Total Medical	5,136	\$6,917		629	\$7,011
Services	Settlement Award	12,566	\$18,844	>	2,293	\$17,597
	Total Indemnity	52,769	\$3,711		8,055	\$3,595
	Total Medical	51,583	\$6,260		7,758	\$6,259

*An entry in this column means there is a statistically significant difference in the means at a 95% level of confidence
 Source: Division of Workers' Compensation Claims File as of February 29, 2000, and National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999

the goods-producing industries versus the service-producing sector.¹⁹ The results for the four goods-producing divisions were those that might have been anticipated, under the assumption that a DFW policy would result in less severe injuries and thus less costly claims. In the cases where there were significant differences in indemnity benefits or settlement awards, the mean was always lower for the DFW policyholder group.

Notably, this was *not* true for the service-producing divisions. There were significant differences in total benefits for two divisions, with DFW having the higher costs. For Retail Trade and Transportation, Communication, and Utilities a major cost driver appeared to be differences in hospital expenses. In that hospital data include both emergency room visits and inpatient care, inferences about “severity” are difficult to make. At this point, the difference in hospital benefit costs both between DFW/non-DFW employers as well as between goods/service-producing industries is unexplained. Retail Trade also proved to be an anomaly in being the only major industry division where physician costs and total indemnity benefits were significantly higher for DFW claims. The indemnity benefit is particularly notable in the context of wage rates in retail trade, which traditionally are much lower than in all other industry divisions except agriculture.

An interesting related finding was in average rehabilitation benefits, a component of total medical costs. In a majority of industry divisions, average rehabilitation benefits were significantly lower for DFW claims. However, further analysis of proportions of claims with rehabilitation benefits revealed that DFW employers or carriers are somewhat more likely to provide rehabilitation services to claimants. Less restrictive eligibility requirements for this benefit may explain lower per-claim costs; claims with zero benefits are not included in the calculation of the averages. There may be a similar, though less obvious, effect at work with regard to settlement awards. In summary, however, the findings involving effects of DFW programs on per-claim benefit costs are incon-

sistent at this point.

Claim Frequency

Actuarial analysis of state workers’ compensation systems shows that severity of workplace injury, as measured by per-claim benefit expenditures, is only one component of total costs. Possibly the greatest cost driver is the *frequency* of workplace injuries. Simple counts of lost-time claims need to be adjusted into injury *rates* to permit comparative analysis between groups of employers. Previous issues of the division’s annual report have included estimates of lost-time injury rates by industry division. These rates have been slight underestimates because the denominator has been *total* employment, not covered employment under workers’ compensation.

This analysis required a three-way match of data from the disparate sources,²⁰ using employer FEIN as the key field. Unfortunately, FEIN is not a required field in any of the three databases and is presumably not audited for accuracy, which limited the matching process.²¹ Table B2.6 clearly shows the notable differences in injury rates between the DFW and non-DFW private employers for each year, indicating markedly higher rates for DFW employers. The combined industry rates are shown in Figure B2.2. The distinction between DFW and non-DFW employers likewise holds true within every major industry division. In Construction the DFW injury rate is roughly a third higher than for other employers, while in Wholesale Trade and Finance, Insurance, & Real Estate the DFW rate is more than double. It is reasonable to hypothesize that a relatively high injury rate may prompt DFW participation. That is, those employers with high frequency (as well as severity) of lost-time injuries will have greater perceived incentives to implement programs such as DFW to lessen the costs of workplace accidents. Figure B2.2 does in fact show a slight time-dependent narrowing of the gap between DFW and non-DFW injury rates.

Table B2.6

Injury Rates by Drug-Free Workplace Status 1996-1999: Private Employers by Industry Type

Private Employers: Major Industry Division*	1996-1999 DFW Program Implementation														
	1996			1997**			1998**			1999**			Four-Year Average		
	Non-DFW	DFW #	%	Non-DFW	DFW #	%	Non-DFW	DFW #	%	Non-DFW	DFW #	%	Non-DFW	DFW #	%
Agriculture, Forestry, Fishing															
Number of Employers	7,236	141	1.9%	7,200	133	1.8%	7,410	158	2.1%	7,090	200	2.7%	7,234	158	2.1%
Count of Lost-Time Claims	2,243	138	5.8%	2,152	133	5.8%	1,987	155	7.2%	1,624	132	7.5%	2,002	140	6.5%
Injury Rate per 100 Workers	1.61	2.85		1.58	3.13		1.46	2.71		1.17	1.65		1.45	2.49	
Construction															
Number of Employers	28,878	1,295	4.3%	28,809	1,193	4.0%	29,395	1,416	4.6%	28,414	2,212	7.2%	28,874	1,529	5.0%
Count of Lost-Time Claims	6,224	1,403	18.4%	6,054	1,269	17.3%	5,370	1,239	18.7%	4,186	1,580	27.4%	5,459	1,373	20.1%
Injury Rate per 100 Workers	2.45	3.42		2.29	3.18		1.93	2.72		1.66	2.26		2.08	2.79	
Manufacturing															
Number of Employers	9,349	626	6.3%	9,381	540	5.4%	9,508	610	6.0%	8,873	826	8.5%	9,278	651	6.6%
Count of Lost-Time Claims	4,491	849	15.9%	4,203	665	13.7%	4,350	669	13.3%	3,466	868	20.0%	4,128	763	15.6%
Injury Rate per 100 Workers	1.06	2.09		0.98	1.73		0.97	1.56		0.85	1.60		0.97	1.74	
Transportation, Communication, Utilities															
Number of Employers	7,214	263	3.5%	7,491	248	3.2%	7,659	256	3.2%	7,205	356	4.7%	7,392	281	3.7%
Count of Lost-Time Claims	4,054	380	8.6%	4,191	271	6.1%	3,695	313	7.8%	3,005	326	9.8%	3,736	323	7.9%
Injury Rate per 100 Workers	1.51	2.97		1.51	2.26		1.27	2.31		1.06	1.33		1.34	2.14	
Wholesale Trade															
Number of Employers	16,660	475	2.8%	17,091	480	2.7%	16,790	506	2.9%	15,873	717	4.3%	16,604	545	3.2%
Count of Lost-Time Claims	2,594	525	16.8%	2,630	450	14.6%	2,418	482	16.6%	2,096	611	22.6%	2,435	517	17.5%
Injury Rate per 100 Workers	0.95	2.24		0.94	2.12		0.86	1.98		0.76	1.78		0.88	2.00	
Retail Trade															
Number of Employers	34,961	713	2.0%	35,541	626	1.7%	35,731	676	1.9%	34,213	831	2.4%	35,112	712	2.0%
Count of Lost-Time Claims	10,519	555	5.0%	10,289	561	5.2%	10,044	502	4.8%	8,861	545	5.8%	9,928	541	5.2%
Injury Rate per 100 Workers	0.96	1.26		0.91	1.38		0.84	1.23		0.72	1.08		0.86	1.23	
Finance, Insurance, Real Estate															
Number of Employers	13,231	191	1.4%	13,630	187	1.4%	13,956	195	1.4%	13,524	231	1.7%	13,585	201	1.5%
Count of Lost-Time Claims	2,617	114	4.2%	1,445	112	7.2%	1,292	119	8.4%	979	216	18.1%	1,583	140	8.1%
Injury Rate per 100 Workers	0.69	1.16		0.44	1.13		0.35	0.91		0.25	1.39		0.43	1.16	
Services															
Number of Employers	68,399	1,161	1.7%	71,234	1,032	1.4%	72,423	1,173	1.6%	70,080	1,598	2.2%	70,534	1,241	1.7%
Count of Lost-Time Claims	12,633	1,128	8.2%	14,980	1,054	6.6%	14,004	1,147	7.6%	10,367	1,661	13.8%	12,996	1,248	8.8%
Injury Rate per 100 Workers	0.76	1.19		0.79	1.28		0.69	1.13		0.50	0.93		0.68	1.11	
Total															
Number of Employers	188,717	4,885	2.5%	193,864	4,463	2.3%	196,133	5,009	2.5%	188,097	7,006	3.6%	191,703	5,341	2.7%
Lost-time Claim Count	50,235	5,106	9.2%	51,543	4,522	8.1%	48,146	4,639	8.8%	41,773	5,945	12.5%	47,924	5,053	9.5%
Injury Rate per 100 Workers	1.11	1.87		1.08	1.81		0.95	1.61		0.82	1.36		0.99	1.63	

*Excludes entities other than construction whose monthly employment did not exceed three workers at any time during 1996-1999. Data for Mining are excluded for confidentiality reasons because of the relatively small number of employers. The Total rows include data for a small number of employers for which industry code was not available.

**Claims data for 1997-1999 are preliminary.

Source: Division of Workers' Compensation Claims File as of August 31, 2000; National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

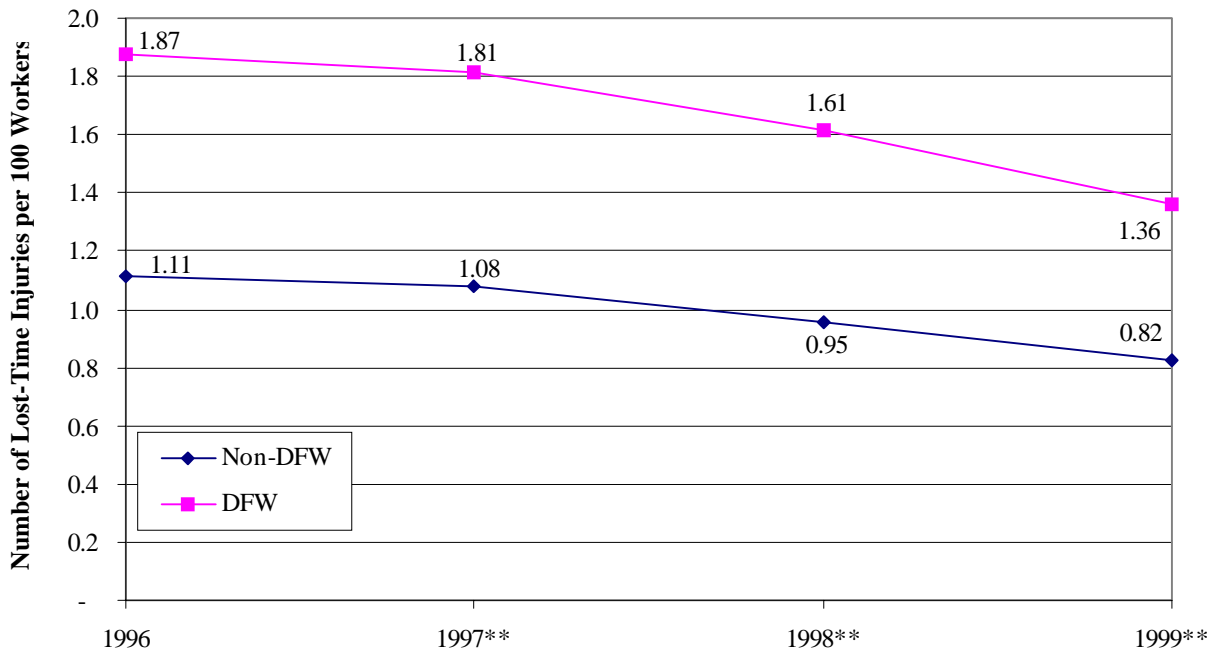
Trends in Per-Claim Costs

Because DFW employers differ from others, a simple comparison of average benefits payments may not be appropriate. The confounding problem is that of self-selection. Implementation of a DFW policy is voluntary, and employers with a relatively high claims experience may feel more of a financial incentive to take steps to potentially reduce claims frequency and lower premium costs. The paradox, then, is that employers who implement a DFW program may indeed reduce their claims frequency, but their post-imple-

mentation injury rates may still be higher than those of other employers who felt no strong incentive to implement a DFW policy in the first place. Note that the analysis so far has provided partial answers to policy-relevant questions stated in the introduction. First, DFW employers are notably different from others in terms of their size and industrial composition. Likewise, DFW employers also show some significant differences per-claim benefit amounts, even after controlling for industry differences. Another question involves whether or not the implementation of a DFW policy results in a reduction in claim costs and rates.

Figure B2.2

Lost-Time Injury Rates per 100 Workers by Drug-Free Workplace Status by Year: Private Employers*



*Excludes entities other than construction whose monthly employment did not exceed three workers at any time during 1996-1999. Data for Mining are excluded for confidentiality reasons because of the relatively small number of employers. The Total rows include data for a small number of employers for which industry code was not available.

**Claims data for 1997-1999 are preliminary.

Source: Division of Workers' Compensation Claims File as of August 31, 2000; National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

This requires an inspection of average costs *over time* for DFW employers. For purposes of this analysis, five subgroups of the file were defined.

- DFW in all four years
- DFW in 1997-1999, but not 1996
- DFW in 1998-1999, but not in 1996 or 1997
- DFW in 1999 only
- No DFW program during the four-year period.

Employers who had a DFW in one year but not in the next were deleted from the analysis.²² Averages for lost-time claims among these five employer groups across the four injury years are shown in Figure B2.3 (for indemnity benefits), Figure B2.4 (for medical benefits), and Figure B2.5 (for settlement

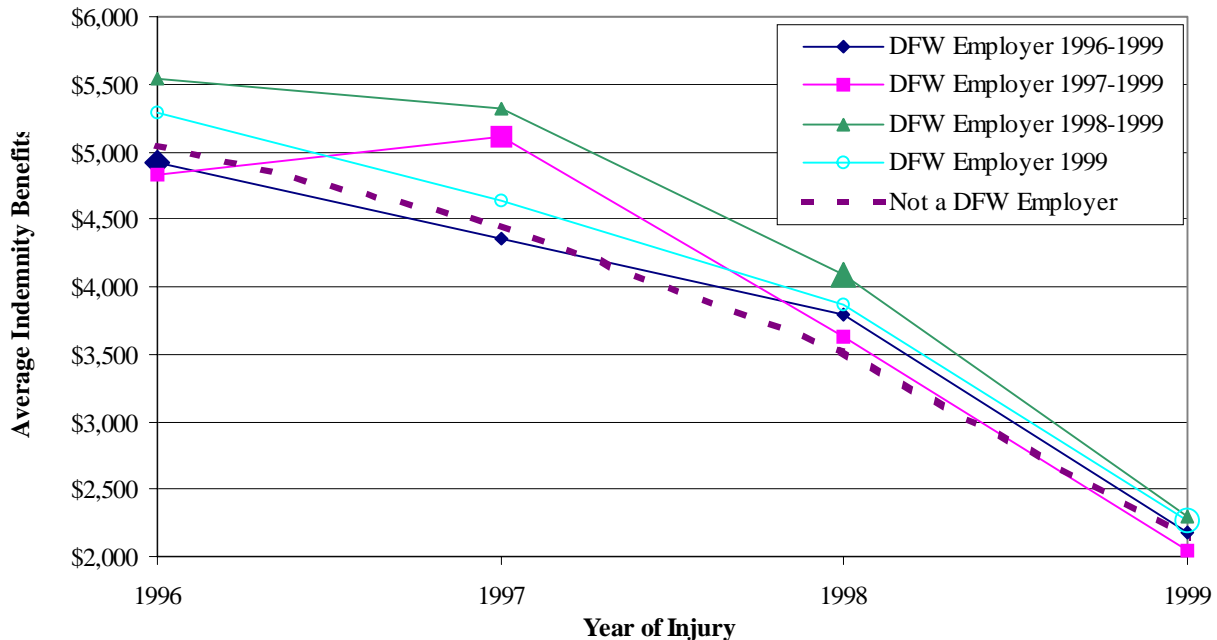
awards). Again, the pattern of decline based on immaturity of data for recent years will be familiar to readers of the division's annual report. However, the results do not provide strong evidence to support the hypothesis that implementation of a DFW will result in a decline in average claim costs, at least over the short run. Mature claim cost data will be needed to confirm, or contradict, these initial findings with respect to long-term claim costs.

Trends in Claim Frequency

As was done in the case of average claim costs, an attempt was made to examine the issue of changed injury rates based on *year of implementation* of a DFW program. The results are shown in Table B2.7, with comparative injury rates displayed graphically in Figure B2.6. The results confirm that non-DFW em-

Figure B2.3

Comparison of Average Indemnity Benefits by Year of Injury and Year of Employer's Implementation of a Drug-Free Workplace Policy



Source: Division of Workers' Compensation Claims File as of February 29, 2000, and National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999

Figure B2.4

Comparison of Average Medical Benefits by Year of Injury and Year of Employer's Implementation of a Drug-Free Workplace Policy

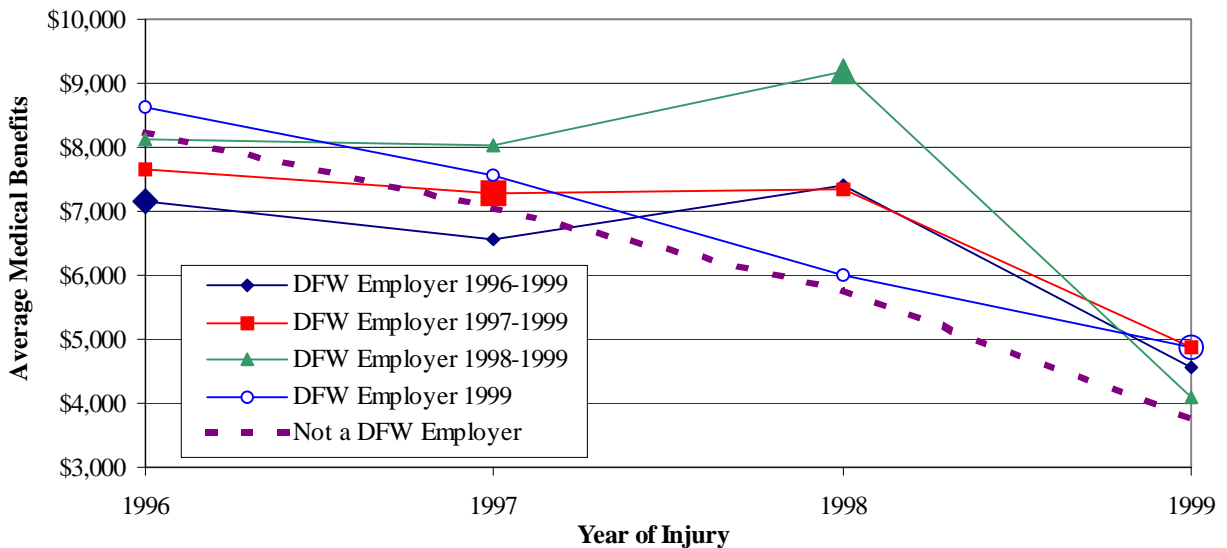
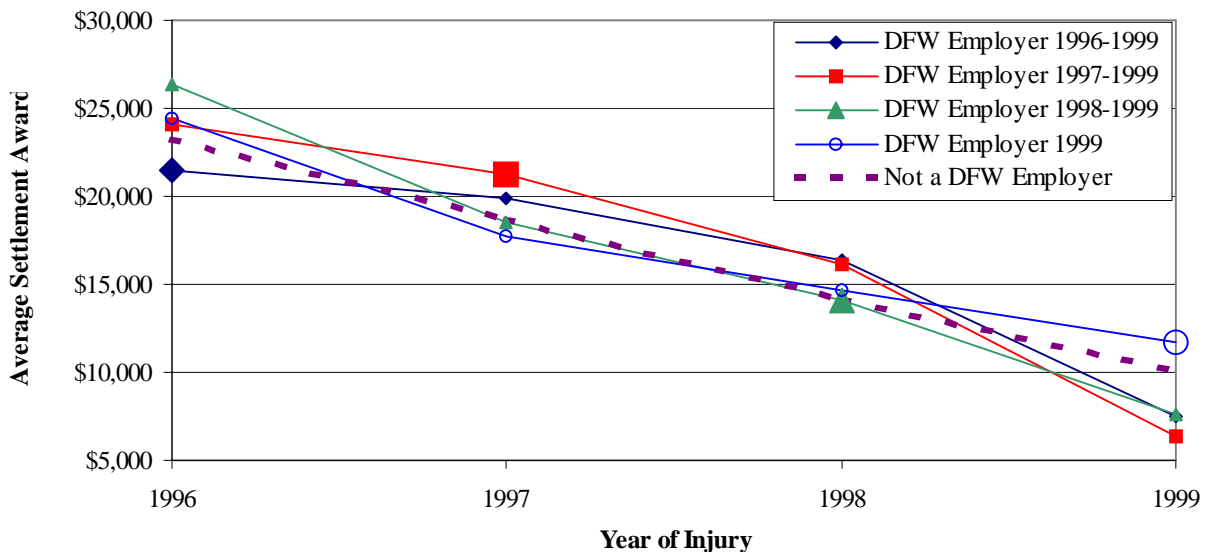


Figure B2.5

Comparison of Average Settlement Awards by Year of Injury and Year of Employer's Implementation of a Drug-Free Workplace Policy



Source: Division of Workers' Compensation Claims File as of February 29, 2000, and National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999

ployers have consistently lower injury rates. Among the employers who did have a DFW program during this period, there was no pervasive pattern of changes in injury rate based on the year of implementation.²³ Additional analysis was done of injury rates by DFW implementation year within major industry division, but the results were similarly inconclusive. This preliminary analysis does not provide persuasive evidence that implementation of a DFW program will result in a quick reduction in lost-time injury rates.

To summarize, the preceding data analysis was intended to shed light on the policy-relevant questions stated in the introduction regarding the characteristics of DFW employers and the effectiveness of DFW programs.

Do DFW employers display different characteristics from others by size, location, occupational patterns, or industry type? The general answer to this question is “yes.” DFW employers are notably

Table B2.7

Employer Size and Injury Rates by Year of Drug-Free Workplace Implementation: 1996-1999

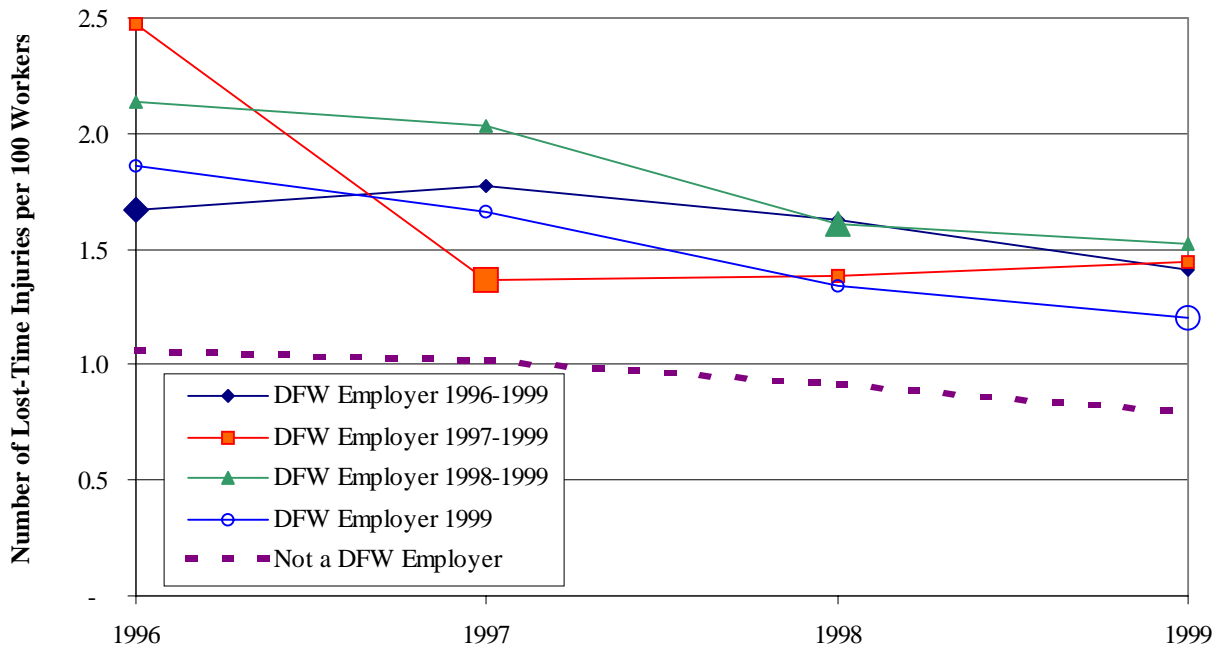
Private Employers*	1996-1999 DFW Program Implementation				
	Non-DFW Employer	DFW in 1996-1999	DFW in 1997-1999	DFW in 1998-1999	DFW in 1999
1996 Data					
Number of Employers	173,675	1,217	484	839	2,042
Average Employment	25	61	40	49	47
Lost-time Claim Count	45,431	1,245	483	877	1,777
Injury Rate per 100 Workers	1.06	1.67	2.48	2.13	1.86
1997 Data					
Number of Employers	178,522	1,217	639	876	2,173
Average Employment	25	63	48	52	58
Lost-time Claim Count	45,793	1,354	423	928	2,096
Injury Rate per 100 Workers	1.02	1.77	1.37	2.03	1.66
1998 Data					
Number of Employers	180,746	1,217	639	1,088	2,322
Average Employment	26	65	52	55	66
Lost-time Claim Count	43,299	1,283	455	970	2,064
Injury Rate per 100 Workers	0.91	1.63	1.38	1.61	1.34
1999 Data					
Number of Employers	174,539	1,217	639	1,088	2,778
Average Employment	28	67	54	57	64
Lost-time Claim Count	39,108	1,145	500	944	2,145
Injury Rate per 100 Workers	0.80	1.41	1.45	1.52	1.21

*Excludes entities other than construction whose monthly employment did not exceed three workers during 1996-1999.

Source: Division of Workers' Compensation Claims File as of August 31, 2000; National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

Figure B2.6

Comparison of Injury Rates by Year of Implementation of a Drug-Free Workplace Policy



Source: Division of Workers' Compensation Claims File as of August 31, 2000; National Council on Compensation Insurance files of Certified Drug-Free Workplace Policies effective in 1996, 1997, 1998, and 1999; and ES202 files of employers covered by the Florida Unemployment Compensation Law, Office of Labor Market Statistics

larger than others within the same industry, which is not surprising considering that a certified DFW program does entail some administrative expense. Likewise, there are distinct differences by industry type, and thus risk classification. DFW employers are more prevalent in the goods-producing sector, which includes construction, manufacturing, agriculture, and mining. These industry divisions are generally classified by NCCI as "high risk."

Do DFW employers show a pattern of consistency in renewal of DFW certification? The answer to this is a qualified "no," based on attempts to match NCCI files of policyholders across the four years.

Although the overall count of DFW policies showed a general pattern of growth, the rate of renewal did not imply as high a level of continued commitment to the program as might have been expected. However, the proportion of DFW policyholders was notably higher in 1999, perhaps signaling a renewed interest in the program. In 1999 the percentage of DFW-covered employment exceeded ten percent for several industry types.²⁴

Do DFW employers differ from others in lost-time injury rates and benefit costs? The response to this question is a corollary to that for the first question. In keeping with their differences by industry type, DFW

employers collectively had both higher injury rates and higher per claim costs than others. However, controlling for industry type accounted for much of the difference.

Does a DFW program result in a noticeable reduction in injury rates and benefit costs within the first few years of implementation? Considering the difference in composition of DFW employers, this analysis was part of an effort to address the issue of how much higher DFW employers' injury rates and claims costs might have been had they never implemented a DFW program. Because this portion of the analysis specifically utilized policy effective and ending dates, as well as additional segmentation of the database, it particularly suffered from problems of incomplete and immature data. Nevertheless, the findings offered, at best, minimal support for the supposition that implementation of a DFW program will offer a quick fix to workers' compensation claim costs. When considered relative to the results for non-DFW employers, there was no dramatic decline in either frequency of claims or per-claim costs for those employers reported to have newly implemented a DFW program.

Policy Issues and Options

Government policies are intended to achieve certain ends relative to the "public good." In the case of drug-free workplaces, legislative intent is described in section 101 of the Florida Workers' Compensation Statute, Chapter 440, as follows.

It is the intent of the Legislature to promote drug-free workplaces in order that employers in the state be afforded the opportunity to maximize their levels of productivity, enhance their competitive positions in the marketplace, and reach their desired levels of success without experiencing the costs, delays, and tragedies associated with work-related accidents resulting from drug abuse by employees. It is further the intent of the Legislature that

drug abuse be discouraged and that employees who choose to engage in drug abuse face the risk of unemployment and the forfeiture of workers' compensation benefits.

The desirability of improving workplace safety through discouraging substance abuse is uncontroversial to the point of creating a "halo" effect for DFW programs among many policymakers and members of the public. As in the case of other policy initiatives, however, it is possible that enthusiasm for desired results may exceed the critical, objective justification of effectiveness. Some of the data presented in this chapter pointedly raise this very issue.

On a positive note, the current premium credit does appear to be an effective way to target some of the employers whose efforts could most contribute to a reduction in workplace injuries. Despite the numerous caveats about incomplete records, the available data do show clearly that employers who had policies at any time during the four-year period had distinctive characteristics: They are more concentrated in high-risk industries and are larger than average even within their industry types. In keeping with their industrial composition, they have higher injury rates and higher per-claim costs. The election of these employers to participate in DFW programs shows some effectiveness of the current premium credit in prioritizing participation for maximal effectiveness.

Unfortunately for proponents, however, the data reported to NCCI on certified DFW policyholders paint a more gloomy picture in that employer participation appears to be limited and sporadic. Overall, very few Florida employers have ever chosen to apply for DFW certification—only around seven percent of all employers subject to workers' compensation coverage requirements at any time between 1996 and 1999. Even among those employers, however, attrition in participation has been very considerable, dropping by as much as 75 percentage points over four years according to data reported to NCCI. If this is a reflection of what employers actually think, it

would be difficult to judge the program successful.

Though there appears to be little opposition to DFW programs, this may reveal a simple lack of interest on the part of many employers. It is not clear if there might be a problem with marketing DFW premium credits; information on anti-drug programs is available on Internet sites, including the division's. Smaller employers may in particular perceive that the administrative costs of implementing and maintaining a DFW program will not be offset by the five-percent premium credit. Ironically, perhaps the most optimistic view of low employer participation is that data provided by NCCI represent severe underreporting.

With regard to the comparatively few employers who have received DFW premium credit, there is little evidence of any significant and consistent reduction in lost-time injuries or costs. Lost-time injury rates were approximately two-thirds higher for DFW than non-DFW employers during all four years. The rate for DFW employers dropped from 1.87 to 1.36, compared to a drop from 1.11 to 0.82 for non-DFW employers. Average indemnity benefits were 5-15% higher for DFW claims during all four years. The gap in average medical costs and settlement awards for DFW versus non-DFW employers actually widened. For 1996 injuries average settlement awards and medical benefits for DFW claims were 99% of those for non-DFW claims. For 1999 injuries, DFW settlement awards were nine percent higher (\$10,890 compared to \$9,954). Average DFW medical benefits exceeded those for non-DFW claims by more than 20% for both injury years 1998 and 1999.

Given the extremely limited employer participation and the modest results obtained by participating employers, the outright elimination of the DFW program would seem to hold little detriment to workplace safety in Florida. In this vein it might be noted that, although several other states implemented DFW premium reduction policies shortly after Florida, very few additional states have jumped on the bandwagon in recent years. In fact, the state of Washington is

permitting its statute to lapse at the end of this year, due in part to lack of evidence that premium discounts have a measurable effect on reducing workplace injuries.

Other considerations suggest that the present elimination of Florida's DFW program could be precipitous. It might be noted that employer participation is voluntary, the cost to government is minimal, and the symbolic value of the program may constitute its chief benefit. Further concerns also support the desirability for cautious action. First is the fact that there has been no implementation analysis to substantiate the manner in which DFW programs are maintained. A drawback of the present study, similar to that of managed care arrangements, is that there is little, if any, reliable information on "generally accepted practices" that could be used to distinguish the effectiveness of DFW programs among employers or carriers. For example, it is not known which employers conduct random drug testing of employees; consequently, the effect of that practice on employers' claims experience cannot be determined. Certainly more information on implementation is needed to substantiate the analysis of outcomes.

Importantly, there is little evidence that certified DFW programs in Florida are being audited at implementation, much less on a continuing basis. There is no standardized way or any direction provided as how to evaluate or confirm that a DFW policy has been implemented in accordance with the statute; this determination has been left completely in the hands of insurance carriers. The application itself is an affidavit of what an employer has done, but appears to be taken at face value. Further evidence of the lack of enforcement can be found within the division itself, where completing the application and providing it to the division reduces assessments on self-insured employers. The division also accepts the form without question and does not pursue efforts to ensure that the employer has in fact implemented a DFW program. This raises the question of whether a recurring audit requirement should be added to the statute. It is possible that this

study's disappointing results regarding claims cost and frequency are a reflection of lax monitoring of DFW practices. Strengthening the statute to require carrier and division monitoring of DFW programs would allay concerns that DFW implementation is merely a rubber-stamp process and help to ensure that premium credit for DFW programs corresponded to real measures taken by employers.

Before passing further judgement on the DFW program, additional data are needed in a number of areas besides implementation. First of all, those who are familiar with workers' compensation research will be aware that because of reporting requirements and patterns of benefit payments, lost-time claims data are considered preliminary for the first three or four years after the date of injury. Thus, very little of the claims data used in this analysis would be considered mature enough for making assertions about the longer-term patterns of claims under DFW policies. This is the same problem faced in analyzing claims data under relatively new initiatives such as the Early Intervention Program and mandatory managed care. A longer history of data on policyholders would also be helpful for tracking patterns of participation in DFW programs. Also, the analysis of data submitted by commercial carriers should be supplemented by similar data on assessment credits granted to those that are self-insured²⁵; their claims characteristics may differ from those of other employers since they have a greater short-term financial incentive to reduce claims costs.

In summary, while DFW programs are not generally controversial, their actual effectiveness in reducing workplace injury rates and benefit costs remains unproven. At this point it is problematic to reliably identify employers with DFW programs, effective dates of participation, and the level of compliance with statutory requirements of the program. It is suggested here that policymakers consider adding an auditing requirement to the DFW statute to help ensure that proper participation accompanies premium credit. It is also suggested that further study of DFW implementation and outcomes precede any legislative initia-

tives to expand the program or to increase the premium credit. NCCI has asserted that the current five percent discount is actuarially sound, but that insufficient data were available to support the increase (to ten percent) proposed during the 2000 legislative session.

Footnotes

¹ Color graphics of the Drug Testing Index, including regional maps depicting rates by type of drug, are available at www.questdiagnostics.com/corporatehealth/news/dti/htm.

² www.samhsa.gov/household99.htm

³ A *carrier-certified* DFW program makes an employer eligible for a workers' compensation premium reduction. Information on implementing a certified drug-free workplace program is on the division's website at www.fdles.state.fl.us/wc/dwc/pdf/drugs2.pdf

⁴ Chapter 442 was repealed effective 7/1/2000.

⁵ According to Kathy Kimbel, Program Manager for Employer Services with the State of Washington, legislation was proposed during the past session to remove the sunset, but there was insufficient support for passage. There were concerns about the lack of real evidence that drug-free program discounts have an effect on either reducing or preventing workplace injuries.

⁶ www.fdles.state.fl.us/wc/DWC/faq/q&a2.html

⁷ Lucky, Kim, and Bok, Ann, "Drug-Free Workplace Programs: A Review of State Efforts," *NCCI Research Brief*, vol. 3, issue 5, December 1996.

⁸ Employers have a strong monetary incentive to fill out the form; it is currently the only method available to realize an immediate and substantial reduction in workers' compensation premiums.

⁹ NCCI is named by contract as the record holder for applications approved by insurance carriers for DFW policies. However, based on inquiries to the division there appears to be confusion among carriers as to where the completed form should be sent. The division has on numerous occasions received forms from carriers for either approval or record keep-

ing. This brings into question how many carriers may not know that they are to provide the information to NCCI.

¹⁰ A risk classification code is part of a system for classifying workers' risk of workplace injury based on a combination of occupational and industrial characteristics. The Division of Workers' Compensation produces a quarterly report analyzing claims characteristics for workers' most frequently occurring risk classification codes.

¹¹ Examination of the raw data files revealed problems with duplicate records and missing data fields, including the FEIN, resulting in the discard of 5-10% of records from each file.

¹² This result may be influenced by the fact that employers may be required by the U.S. Department of Transportation to have a drug-free program.

¹³ Not otherwise classified

¹⁴ The deletion of records with employment <4 was done after matching to the NCCI file and thus resulted in the deletion of a small number of DFW policyholders. Note that construction employers with <4 workers were included because they are covered by Florida workers' compensation law. If construction is likewise limited to those with >3 workers the percentages of DFW employers are 6.4%, 5.9%, 6.9%, and 11.1% for 1996 through 1999 respectively.

¹⁵ *Statistical Supplement to the 2000 Annual Report*, p. 8.

¹⁶ Caveats should be noted in making this assertion, particularly with regard to the assumptions made in defining possible workers' compensation coverage and the difficulties in making employer matches. Reliable data on the total count of employees covered by workers' compensation in Florida do not exist.

¹⁷ Crosstabulations were done of the DFW variables with cause of injury, nature of injury, injured body part, disability type, county, and risk classification. Comparisons were also done of per-claim averages for indemnity benefits, medical benefits, and settlement awards.

¹⁸ Note, however, that this result agrees with the 1996 NCCI study by Lucky and Bok.

¹⁹ The goods-producing industry divisions are Agriculture, Forestry, & Fishing; Mining; Construction; and Manufacturing. Service-producing industry divisions are Transportation, Communication, & Utilities; Wholesale Trade; Retail Trade; Finance, Insurance, & Real Estate; Services; and Gov-

ernment.

²⁰ The combined four-year file of DFW policyholders from NCCI, the ES202 file of employers covered by Unemployment Compensation, and the division's lost-time claims file

²¹ For example, approximately one-third of lost-time claims for 1996-1999 injuries could not be matched to the UC employer data file. However, it was assumed that the absence or inaccuracy of the FEIN field was random, so general conclusions could be drawn from the resulting data file.

²² This restriction eliminated about 45% of the records on the combined NCCI file.

²³ There is an exception in the case of employers who implemented a DFW policy in 1997. These employers show a notable drop in injury rates from 1996 to 1997. On the other hand, this is the smallest employer group, and its 1997 data may be an anomaly as indicated by the fact that, unlike the other groups, its injury rates *increased* in both 1998 and 1999. Employers with a newly-implemented program in 1998 also showed a higher drop in injury rates than non-DFW employers, but the decrease was roughly parallel to that of employers who did not implement a DFW program until 1999. Collectively, the four groups of DFW employers did display a greater over-the-year drop in injury rates in 1997 and 1998. From 1998 to 1999 the change in injury rates for DFW employers was roughly the same as for non-DFW employers. It should also be noted that an employer may implement a DFW policy at any time during the year. Thus, the effect of a new policy effective during the last quarter of a calendar year might not become apparent until the following year.

²⁴ This was based on a comparison of employment for DFW policyholders (for which a match to the UC coverage file could be obtained) to an estimate of total employment covered by the Florida workers' compensation law.

²⁵ Some desired data items for self-insured employers are not currently available in machine-readable form.

Appendix A

State Drug Testing Laws: Workers' Compensation Premium Discount or Reduction Acts
Source: U.S. Department of Labor, Substance Abuse Information Database

ALABAMA: State law provides a five-percent discount to employers who establish a drug-free workplace program in compliance with the act. In order to qualify for the benefit, the program must include a written policy, employee education, supervisor training, resources of employee assistance providers, pre-employment, post-accident, reasonable-suspicion, and rehabilitation and post-rehabilitation drug testing. Employers must have their program certified in advance by the Department of Industrial Relations in order to receive the premium discount. ALA. Code §25-5-330 to 25-5-340 (Supp. 1997).

ARKANSAS: The Voluntary Drug Testing Program provides a premium credit on workers' compensation insurance to employers who implement and maintain a certified drug-free workplace program in accordance with the standards set forth in the Act. The Act is comprehensive and requires various types of drug and alcohol testing in order to qualify for the benefits. Random testing is not required. A comprehensive written policy must be implemented and U.S. Department of Transportation drug testing procedures must be followed. An employer testing employees according to federal rules or regulations is deemed to be in compliance with this Act. Any employee who tests positive for drugs or alcohol or who refuses to be tested for drugs or alcohol may be terminated and forfeits eligibility for workers' compensation in medical and indemnity benefits. (1999)

FLORIDA: A voluntary law provides a five-percent discount on workers' compensation premiums to employers who implement and maintain a certified drug-free workplace program in accordance with the standards set forth in the Act. A confirmed positive drug

test result disqualifies an injured employee from receiving benefits. The Act requires preemployment, for-cause, periodic, post-accident, and rehabilitation drug testing. Random testing is permitted but not required. A comprehensive written policy must be implemented and specific requirements relating to drug testing procedures must be followed. The Act was recently amended to permit the use of hair testing. Fla Stat. 440.101 - 102 (West Supp. 1998); Fla. Admin. Code Rule 38F-9 (1993).

GEORGIA: A voluntary law provides a 7.5% discount on workers' compensation premiums to employers who have implemented a drug-free workplace program that is certified by the state Board of Workers' Compensation. A certified program must include the following: a written policy statement, substance abuse testing, resources of employee assistance providers, one hour of employee education, and two hours of supervisory training annually. Annual certification is required. Length of premium discount is not to exceed 8 years. Ga. Code 33-9-40.2 (Supp. 1998); Ga. Code §§34-9-410 to 421 (1998).

HAWAII: Insurance carriers must offer a discount of at least five percent on insurance rates to employers who maintain an effective safety and health program. The act does not specifically mention drug-free workplace programs, but does direct the Department of Labor and Industrial Relations to issue standards and rules. Haw. Rev. Stat. §431:14-103. (1997).

IDAHO: The "Private Employer Alcohol and Drug-Free Workplace Act" is a voluntary law which (1) permits employers to test employees and applicants for drugs and alcohol, (2) provides requirements for collection and testing, (3) limits employer liability for establishing a testing program in compliance with the provisions of the Act, or for taking any disciplinary action based on its established substance abuse policy, and (4) establishes that an employee who is discharged

for (a) a confirmed positive drug or alcohol test, (b) refusing to be tested, or (c) adulterating or attempting to adulterate a test sample, would be discharged for misconduct for the purposes of receiving unemployment compensation benefits. All testing must be conducted in compliance with 42 U.S.C. 12101. On-site testing is permitted for initial screens but must be confirmed by GC/MS if positive. In 1999, Idaho amended its drug testing to law to provide a workers' compensation premium discount to employers who implement and maintain a drug-free workplace program in accordance with the state's voluntary drug testing law. Idaho Code Sect. 72-1701 - 1716 (1999).

LOUISIANA: State law includes a provision whereby employers may be eligible for a tax credit against their state income tax in the amount of five percent of the "qualified treatment expenses" incurred by the employer for substance abuse treatment services. La. Rev. Stat. Ann. 47:6010.

MISSISSIPPI: State law provides for a five-percent reduction in workers' compensation premiums to employers who establish a drug-free workplace program. In order to qualify for the reduction, employers must have a written policy statement, conduct drug and alcohol testing, maintain a resource list of EAP providers, provide employee education and supervisor training, and maintain confidentiality standards. MS Code Ann. 71-3-201 to 225. (1997).

OHIO: The Ohio State Bureau of Workers' Compensation has issued a rule that provides for a five-year phased-in workers' compensation insurance premium reduction that can rise as high as 20%. Employers receive different discounts based on the type of drug-free workplace program that is implemented. At the lowest level (six percent), employers must establish a written policy, conduct annual employee education and supervisor training, and conduct drug and alcohol testing (pre-employment, post-accident, reasonable suspicion, and follow-up). As the discount rises, random testing must be introduced as well as health care coverage for chemical dependencies. Rule

4123-17-58 State Bureau of Workers' Compensation: 800-644-6292

SOUTH CAROLINA: Provides for a five-percent discount on workers' compensation premiums to employers who voluntarily establish a drug-free workplace program in compliance with the act. The statute calls for the Director to promulgate regulations for the certification of employer programs. At a minimum, the requirements include a written substance abuse policy statement, employee notification of program, confidentiality procedures, and random sampling of all employees. A second test must be conducted within 30 minutes of the initial test. (Act 92. 1997). Amends §38-73-500 of the Code of Laws of South Carolina, 1976.

TENNESSEE: State law provides a five-percent reduction on workers' compensation premiums to employers who establish drug-free workplace programs. Requirements include a written policy statement, a resource list of EAPs and other rehabilitation programs, and drug and alcohol testing. TCA 50-9-101 to 111 (1996). Amended 1997.

VIRGINIA: Insurers providing coverage under the workers' compensation statute must provide premium discounts of up to five percent to every employer who institutes a drug-free workplace program which meets the criteria established by the insurer. VA ST Sect. 65.2-813.2. 1997.

WASHINGTON: The state provides a workers' compensation premium reduction program for which employers may qualify by establishing a drug-free workplace program in compliance with the law. In order to qualify for the five percent discount, employers must implement a written substance abuse policy, conduct substance abuse testing, provide employee assistance services, comply with confidentiality standards, and conduct employee education and supervisory training programs. Rev. Code of Wash. 49.82.010-.901. 1996. NOTE – Washington's premium reduction program is due to sunset at the end of 2000.