

# **Observed Associations Between WISHA Activities and Compensable Claims Rates**

## **Executive Summary**

December 2001

*SHARP Technical Report Number: 70-1-2001*

James Baggs, Ph.D.

Barbara Silverstein, Ph.D., M.P.H.

Mike Foley, Ph.D. (candidate)

Safety and Health Assessment and Research for Prevention (SHARP) Program

Washington State Department of Labor and Industries

PO Box 44330

Olympia, WA 98504-4330

**Key Words:** OSHA regulations, WISHA, Washington State, claims rates, workers compensation

### **Introduction**

The Washington Industrial Safety and Health Act of 1973 places the responsibility for regulation of health and safety in Washington State in the Department of Labor and Industries (L&I). L&I has organized many services provided through the Washington Industrial Safety and Health Act into a single division commonly known as “WISHA”.

L&I dedicates a significant portion of its resources to enforcement inspections.

Enforcement inspections seek to encourage safe workplaces and prevent injuries and illness through deterrence [McQuiston, 1998]. In addition to enforcement inspections, WISHA offers consultation services. An employer requests help from WISHA personnel to correct potential hazards and rule violations without the threat of penalty.

The effect of WISHA activity remains an important issue to not only L&I but also the businesses and workers the department serves. However, only limited analysis has been conducted to examine the relationship between account claims rates and WISHA activity.

Therefore, in response to the WISHA strategic goal “Reduce the average compensable claims rate for fixed site employers with targeted WISHA enforcement or consultation visits at least 5% more than the overall decrease,” the Safety & Health Assessment & Research for Prevention (SHARP) program conducted an examination using L&I data to examine the association between WISHA activities and compensable claims rates.

## **Methods**

The study was divided into three periods, a pre-study period, a baseline period, and a measurement period. During the pre-study period compensable claims rates, hours, and WISHA activity were determined for each account. The accounts selected for inclusion in the study had to satisfy criteria based on measurements from the pre-study period. For this group of accounts, compensable claims rates and WISHA activity were determined during the baseline period. Accounts were also categorized by their WISHA activity in this period. During the measurement period, claims rates were determined for each account ID and compared to those from the baseline period.

The following inclusion criteria were used to select the group of accounts for study:

1. Only account IDs reporting hours each quarter from SFY 1997–2000.
2. State Fund account IDs.
3. Account IDs with a single business location (one busloc only)
4. Account IDs with at least 10 FTEs-YR. Account ID size was based on average reporting hours during the pre-study period.
5. Account IDs with no prior WISHA activity during the pre-study period.

Changes in claims rates for accounts with and without WISHA activity were compared through univariate and multivariate analysis. Univariate analysis examines one factor, such as WISHA activity. Multivariate analysis examines numerous factors simultaneously. Through multivariate analysis, the association between WISHA activity and claims rate can be examined controlling for other external factors. Further, analysis was conducted separately for account IDs with “fixed site” SIC codes compared to account IDs with other SIC (“non-fixed site”). Fixed site SIC codes included agriculture; manufacturing; wholesale trade; retail trade; finance, insurance, and real estate; services; and the executive, legislative, and general government (two-digit SIC’s 01, 02, 20-39, 50-87, 91).

## **Summary of Results**

Using the univariate analysis, WISHA activity was associated with an 18% greater decline in compensable claims rates from SFY1999 to SFY2000 among fixed site SIC codes. Among non-fixed site SIC codes, WISHA activity was associated with a 6% greater decline in claims rates.

More specifically, WISHA enforcement activity was associated with a 25% greater decline in fixed site SIC and an 11% greater decline in non-fixed site SIC. WISHA consultation activity was not associated with a greater decline in compensable claims rates. Further, WISHA targeted enforcement activity was associated with a 22% greater decline in fixed site SIC and a 13% greater decline in non-fixed SIC.

WISHA activity was not associated with a decrease in the survival of accounts. In fact, a greater proportion of accounts with WISHA activity survived through the study period, SFY1997–2000.

Studies in other account groups are recommended. However, WISHA activity occurs more often in multiple business location accounts. And while studies at the business location level would be recommended, they cannot be completed currently. Such studies require WISHA visits to collect the *BUSLOC\_ID* and for hours to be

reported at the business location level. Currently, hours are reported only at the account level.

While this study minimizes external factors, which influence comparison of claims rates, several limitations exist. Most importantly, the association between WISHA enforcement activity and decreasing claims rates does not demonstrate by itself a cause and effect relationship. Furthermore, the lack of association between consultation activities and decreasing claims rates does not prove that consultation is an ineffective method. More information especially regarding the mechanism by which claims rates decrease is necessary to demonstrate such relationships.

**Figure 3. Percent Change in Average Compensable Claims Rates for SF Accounts SFY1999-SFY2000**

