

An audit-based occupational health and safety recognition program: Is certification associated with lower firm work-injury rates?

Background

The Partners in Injury and Disability Prevention Program, established by WorkSafeBC (the workers' compensation system in BC, Canada), is a voluntary program that recognizes and rewards employers who exceed legislative and regulatory requirements in implementing occupational health and safety (OHS) and return-to-work programs. The intent is to reduce workplace injuries and assist injured workers in making an early, safe return to meaningful work. WorkSafeBC first piloted the program in 2002 in the construction sector, then expanded to the oil and gas sector in 2004 and to all industry sectors in 2006. Employers who pass an audit of their OHS practices receive a Certificate of Recognition (COR) and are eligible for a rebate of 10% of their WorkSafeBC premium.

Voluntary audit-based certification as a way of recognizing or encouraging effective OHS practices is a common approach of regulators in Canada and internationally. However, there has been little research examining whether these programs lead to improved OHS outcomes. We evaluated whether COR certification was associated with lower firm-level injury rates in BC by comparing certified firms to non-certified, but eligible, firms from 2002 to 2012.

Based on research presented in:

McLeod C, Quirke W, Koehoorn M. (2015). [Evaluation of the effect of an audit-based occupational health and safety recognition program on firm work-injury rates in British Columbia, Canada. Final Report to WorkSafeBC.](#) Vancouver: Partnership for Work, Health and Safety, University of BC.

Approach

We used an observational research design. Certification is voluntary and firms self-select into the program. Participating firms, by the very nature of choosing to become certified, are different than non-participating firms. Self-selection into voluntary programs is a central challenge in assessing whether program participation has a “causal” effect (i.e., that any changes in injury rate are due to participation in the program and not due to other factors). We used a difference-in-difference evaluation methodology that can identify change attributed to an intervention (the COR program). This approach utilizes a control group (the non-certified firms) and identifies two differences: (1) the difference between the certified and non-certified firms pre-intervention and (2) the difference between the certified and non-certified firms post-intervention. The impact of the intervention is the sum of these two differences.



What we found

Overall

Certified firms had, on average, a 12% lower short-term disability, long-term disability and fatality (STD, LTD, and fatality) injury rate between 2005 and 2012 compared to non-certified firms, and a 17% lower serious injury rate. We found no difference in the health care only claim rate.

Over time

Certification was associated with a lower injury rate for both STD, LTD and fatalities and for serious injuries across all years of the study. In the years with the largest number of certified firms (2009 to 2012), the reduction in the STD, LTD and fatalities injury rate ranged between 10% and 16% and the reduction in the serious injury rate ranged between 14% and 17%.

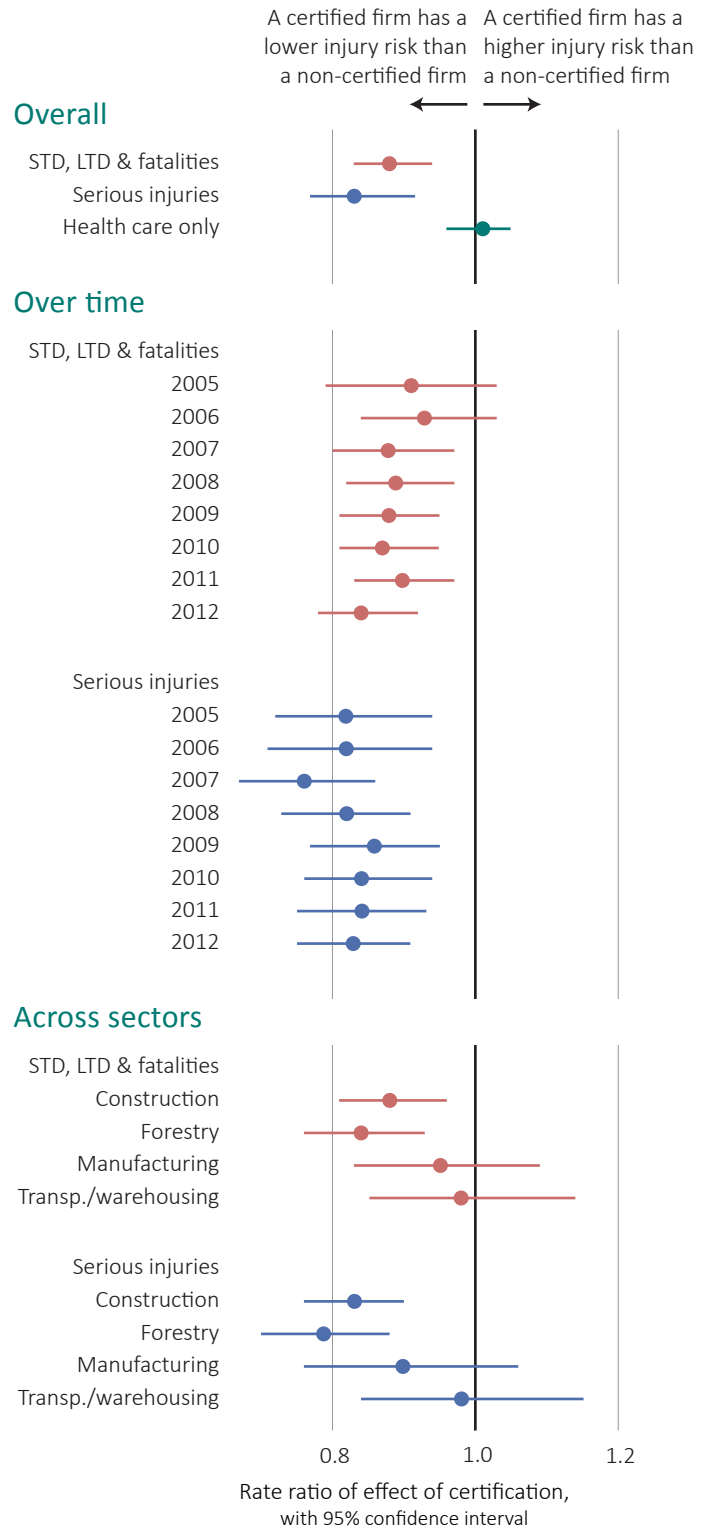
Across sectors

We examined construction, forestry, manufacturing and transportation/warehousing firms separately. Certified firms in construction and forestry had, on average, 12% and 16% lower STD, LTD and fatality rates and 16% and 21% lower serious injury rates compared to non-certified firms, respectively. The reduction in these injury rates was largest between 2009 and 2012 for construction firms, while the reduction was similar between 2007 and 2012 for forestry firms. Small reductions or no differences in injury rates were observed between certified and non-certified firms in manufacturing and transportation/warehousing.

What are serious injuries?

Short-term (at least one day of time loss) or long-term disability claims with at least one of: long duration (>28 days of wage loss); high costs (equivalent to 28 days of wage loss); serious medical diagnosis (e.g., fractures); or fatality.

Figure | Effect of COR certification on injury rates, by type of injury rate, over time, and across sectors



Injury rate estimates below 1.0 indicate that certified firms have lower injury rates than non-certified firms. Smaller estimates indicate correspondingly lower rates. Where confidence intervals cross 1.0, the difference in the injury rate may be due to chance.

What this means

COR program participation is associated with lower injury rates, particularly in the construction and forestry sectors and in the years 2009 to 2012. Our interpretation of this finding is that the COR audit process is effective at identifying firms with lower work injury risk; however, caution should be exercised in inferring that certification itself caused any reduction in injury risk. While the difference-in-difference evaluation design attempts to account for pre-certification differences in injury risk between certified and non-certified firms, we cannot rule out that certification served as a marker for existing OHS practices (or other factors) that drove changes in injury risk once a firm became certified.

Future research should be focused in three areas:

(1) ongoing monitoring of the effectiveness of the program; (2) investigation of how the certification process facilitates change in firm OHS practices; and (3) assessment of the audit tool to improve its efficiency and to incorporate evolving OHS best practices.

More information

Please contact Chris McLeod, PWHS Co-Lead, at chris.mcleod@ubc.ca with questions about the methods, results, or interpretation of this evaluation, or to request a copy of the full report. General enquiries should be directed to Suhail Marino, PWHS Program Manager, at suhail.marino@ubc.ca.

