

New risk rates, inter-industry differentials and the magnitude of VSL estimates

Carol R Scotton
Department of Economics
Knox College
Galesburg IL 61401
cscotton@knox.edu
(309) 341-7115

Abstract: The Census of Fatal Occupational Injury (CFOI) provides data for creating objective measures of workplace risk used in estimations of wage-risk premia for Value of Statistical Life (VSL) calculations. This relatively new data set enables a more theoretically defensible measure for use in hedonic wage equations. However, constructing these rates from the CFOI data necessarily involves creating an industry-occupation matrix defining the 'jobs', deciding whether or not to include the self-employed, and selecting a denominator. These choices in the construction of the risk measure alone, as shown here, result in variations of VSL estimates ranging from \$8 million to \$18 million. Further, risk measures based on the CFOI data, regardless of construction, are sensitive to simple changes in the specification for the hedonic wage equation. In particular, fixed effects describing the industry in which a worker is employed, as well as the worker's occupation, are primary influences on the magnitude of the VSL estimates.

This research was conducted with restricted access to Bureau of Labor Statistics (BLS) data. The views expressed here do not necessarily reflect the views of the BLS.

[Click here for brief description of the fatal workplace risk rates created](#)

[Click here for a summary of the risk measures and details on the two job cluster matrices](#)

[Click here for descriptive Stats on Labor Force sample](#)

[Click here for Summary Tables with coefficient estimates for each of the 24 models, for each of 6 risk measures. Or, Click below for full regression results for each model, for each risk measure:](#)

risk* = r1111 (square_all_cps)

risk* = r1231 (square_wage_cps)

risk* = r1221 (square_wage_oes)

risk* = r2111 (long_all_cps)

risk* = r2231 (long_wage_cps)

risk* = r2221 (long_wage_oes)

[Click here for regression results on the 73 industry controls](#)

[Click here for full regression results for replication model used for comparison example](#)

The Stata datasets of the risk measures I created for this research may be available from the BLS after entering a confidentiality agreement with them. Contact me for more information.

The CFOI data is available from the BLS. Contact information:

<http://www.bls.gov/iif/oshcfoi1.htm> (last accessed August 13, 2012)