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

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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.

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