

Measuring the value of life and limb: Estimating compensating wage differentials among workers in Chennai and Mumbai, S. Madheswaran, SANDEE Working Paper No. 9-04.

Abstract

Policy makers confronted with the need to introduce health and safety regulations often wonder how to value the benefits of these regulations. One way that a monetary value could be placed on reductions in health risks, including risk of death, is through understanding how people are compensated for the different risks they take. This approach, referred to as the compensating wage differentials method, estimates the wage premium a worker would need to be paid to accept a small increase in his/ her risk of dying, or, equivalently, what a worker would pay to achieve a small reduction in risk of death. Wage premiums can be estimated from observed labor market data and converted to the value of a statistical life (VSL) — a number that summarizes what a population may be willing to pay to reduce the risk of one death in a statistical sense.

While there is an extensive literature on VSL and compensating wage differentials for the developed countries, few such studies exist when it comes to developing countries. Our study is an attempt at obtaining estimates of VSL that reflects Indian risk preferences. Based on a survey of 550 workers in Chennai and 535 workers in Mumbai, we find the value of a statistical life in India to be approximately Rs. 15 million. The value of statistical injury ranges from Rs. 6000 to Rs. 9000. Policy makers interested in programs to decrease environmental and health risks could use these numbers as one bench-mark against which costs can be assessed.

Key words: Compensating Wage Differentials, Hedonic Price, Valuations of Life/ Injury
JEL Classification: J17, J28, J31.