

## What's the price on your head?

1. Returning to Mount St John, how much would the value of a (statistical) life have to be in this case to justify spending £10 million pounds or £100 million pounds?

*Justified spending = VSL × population × risk of eruption × decrease in probability of death in case of eruption.*

*Substituting in figures for £10 million case:*

$$£10,000,000 = VSL \times 100,000 \times 0.01 \times 0.01$$

$$\text{Rearranging gives } VSL = 10,000,000 / (100,000 \times 0.01 \times 0.01) = £1 \text{ million}$$

*Similarly to justify spending £100 million the VSL must be £10 million.*

*(Note that the assumption is that the effects of the spending last for the 20 years mentioned)*

2. How much would you be willing to pay to reduce the risk of a fatal road accident from 5 in 100,000 to 4 in 100,000? What does this imply for your estimated VSL? Try asking other people and compare answers.

*The VSL will be calculated in a similar way as above:*

$$WTP = VSL \times \text{decrease in probability of fatal accident.}$$

$$WTP = VSL \times 1/100,000.$$

$$VSL = WTP \times 100,000$$

3. How easy do people find it to answer questions like Q2? Are there different ways of asking the question that make it easier? For example, does it help if you use population figures to work out the absolute number of road deaths that the probabilities imply?

[Compare your answers to other students' answers here!](#)

4. How do the answers you get from Q2 compare to the answers you would get if you took a human capital approach?

[Compare your answers to other students' answers here!](#)