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Peeling back the onion:

Using latent class analysis to uncover heterogeneous responses to stated preference surveys

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Abstract

We develop validity tests for application to stated-preference estimates of WTP to reduce mortality risk, i.e., value per statistical life (VSL), and apply these to data obtained by surveying a representative sample of French adults over the internet. These tests (WTP nearly proportional to risk reduction, insensitive to small differences in baseline risk, increasing in income, and consistent with budget constraints) are satisfied by a conventional single-regression analysis of our data. Using latent class analysis (LCA), we identify important differences between respondents in their consistency with the validity tests and control for much of this heterogeneity. Estimates of VSL from the latent class that is consistent with the validity tests are smaller than estimates from the standard analysis. We estimate mean VSL for adults of about 2 million € and for children (based on parents' WTP) of about 6 million €

JEL Codes: D03, D61, D64, I18, Q18, Q51.

Keywords: Value per Statistical Life, Latent Class Analysis, Paradata, Scope sensitivity, Income elasticity, Pesticides, Children.

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