

# Fuel Poverty and Well-Being: A Consumer Theory and Stochastic Frontier Approach

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## Abstract

Evidence and conventional wisdom suggest that general poverty has a negative effect on the well-being of individuals. However, the mechanisms through which this effect occurs are not well-understood. In this paper we analyse the effect of general and fuel poverty as well as the social dimension through peer comparison on the objective and perceived well-being of households. We develop a novel approach to analyse fuel poverty and well-being based on consumer theory. Individual preferences are modelled using indifference curves and a distance function where the preferences of individuals are affected by their poverty status. We use the survey data from the official Spanish Living Conditions Survey (SLCS) for 2013 which contains over 16,800 observations on household members. The results show that both general and fuel poverty influence the reference indifference curve but that individuals also compare themselves with their peers. The proposed model also allows us to corroborate how general and fuel poverty affect well-being and how effective policies can be designed to improve social welfare.

**Keywords** Distance functions, fuel poverty, general poverty, indifference curve, stochastic frontier analysis, subjective well-being.

**JEL Classification** D12, I32, Q41

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