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Exploring the Use of Financial Data for Fuel Poverty Classifications

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Introduction & Background

Traditional poverty classifications rely on relatively small samples; for example, the main resource used to model fuel poverty (i.e., an inability to afford sufficient energy services) in England is the English Housing Survey (~30,000 homes). The superior coverage of financial datasets, e.g., aggregate banking data, may allow more precise estimations. Further, the current approach to measuring fuel poverty in England, Low Income Low Energy Efficiency (LILEE), has been shown to significantly underestimate the true rate of fuel poverty. To reconcile these matters, the current study explores the merits of financial data for fuel poverty classifications and also provides evidence for a set of fuel poverty measurement criteria that remedy the shortcomings of LILEE while also being compatible with adjacent modern agendas.

Objectives & Approach

This study analyses financial data, specifically an income volatility dataset provided by Smart Data Foundry that was derived from NatWest accounts (drawn from an original sample of ~5 million customers), to explore alternative fuel poverty measurement approaches in England. The analysis involves the estimation of fuel poverty according to a range of existing definitions, e.g., LILEE, 10% and Low Income High Costs, as well as emerging methods, e.g., the Minimum Income Standard (MIS)-based approach, which is able to account for living standards and was recently adopted as the official fuel poverty definition in Scotland. Following this, the merits of using financial data for poverty classifications are discussed, and the modern appropriateness of competing fuel poverty definitions is evaluated.

Relevance to Digital Footprints

The relevance to digital footprints is inherent to the study's purpose: that is, to improve the identification of fuel poor homes through the utilisation of financial sector digital footprints.

Results

Initial results provide further evidence that the English (LILEE) approach to measuring fuel poverty underestimates fuel poverty in many low-income homes. We suggest that using financial data for fuel poverty classifications can provide more granular and accurate estimates. In addition, we suggest that MIS-based approaches to measuring fuel poverty are more accurate and better suited to modern needs.

Conclusions & Implications

The results can be used to inform a more effective approach to measuring fuel poverty in England: first, in terms of the data used for fuel poverty modelling; and second, concerning the most appropriate fuel poverty definition.

Keywords

Poverty definitions, Fuel poverty, Financial footprints

