

Heterogeneity of the fuel poor in Poland – quantification and policy implications

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One of the basic human needs is being provided with heat and electricity in the place of living. The level to which this need is met may be determined by various factors: the quality of dwelling, its size, source of heating used, energy efficiency of electric devices, number of persons in a household, their level of income and knowledge about energy-saving customs. A household is said to be in fuel poverty when it experiences difficulties in meeting basic energy needs at its place of residence at a reasonable price. This is caused by unfavourable combination of aforementioned factors and may result in lack of thermal comfort in the place of living, having arrears in energy bills or a difficulty in meeting other basic needs in order to pay high energy bills. All these strategies, although different, mean the same – coping with fuel poverty.

The aim of the article “Heterogeneity of the fuel poor in Poland – quantification and policy implications” is to analyse the variety of Polish households at risk of fuel poverty. We would also like to point out to the complexity of mechanisms leading to fuel poverty and to show the diversity of strategies undertaken by people facing the problem in their everyday lives.

We combine different methods in our analysis. Firstly, using Polish Households Budget Survey 2014 data and applying cluster analysis, we create 12 general types of households in Poland. We focus on two criteria: energy efficiency and income. Then, using two indicators: LIHC (Low Income High Costs) and subjective one, we find out in which types of households the problem of fuel poverty is the most severe. LIHC indicator points out to these households whose expenditures on heat and electricity are disproportionately high and whose incomes, at the same time, are low. Subjective measure of fuel poverty is based on declared lack of thermal comfort in the place of living. Having identified types of fuel poor households, we finally analyse sociological literature on poverty in Poland in the last two decades. We find in these studies descriptions of experiencing different types of fuel poverty in everyday life.

Both quantitative and qualitative research lead us to the following conclusions:

- Fuel poverty arises from the conjunction of at least two of the following factors: low energy efficiency of buildings, low or extremely low incomes and big floor area.
- Living in energy inefficient buildings and having low incomes refers to certain inhabitants of both rural and urban areas. On the one hand, it concerns households occupying modest dwellings in pre-war tenement houses located in ‘neighbourhoods of poverty’ in cities. On the other hand, it regards poor inhabitants of rural areas living in old houses and. The reason for this type of fuel poverty is strongly connected to the transition processes in Poland that have taken place since 1990’s. The collapse of state-owned enterprises and farms resulted in some regions in permanent deterioration in the local labour markets. Little state and local governments intervention concerning improvement of housing stock’s energy efficiency caused that the deterioration in the local labour markets lastingly influenced poor housing conditions.
- Other type of fuel poverty is faced by households living in houses with big floor area. These are large families with children whose per capita income is relatively small and whose houses’ sizes are adequate to their needs. They usually do not declare lack of thermal comfort and do not experience high material deprivation. However, high energy needs mean for them limited resources to meet other basic needs.

- The problem of inadequately big floor area to be heated concerns some pensioners living in rural areas. This group of fuel poor lives in houses too big for their needs and financial abilities. Adjusting housing conditions to changing income level and general household's situation turns out to be problematic, especially for those with low incomes and those owning, not renting, their dwellings.
- The fuel poor undertake numerous actions to provide themselves and their families with thermal comfort. They make modifications of heating and electric installations on their own, collect the forest wood in order to use it for heating or take loans to buy fuel. They wear several layers of clothing and use electric furnaces in winter. However, their ability to permanently improve their situation is restricted by structural factors on which these people have limited impact.
- One of the strategies undertaken by the fuel poor is using ecologically inefficient sources of heating. However, using more environmentally friendly energy sources (e.g. district central heating or gas stoves instead of fuel stoves) would result in increase of energy costs perceived by single household. This shows the contradiction between raising ecological efficiency of heating and eradicating fuel poverty.

Full version of the article:

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