

## Extended Abstract

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<b>Paper/Poster Title</b>	<b>Assessing the “Heat or Eat” dilemma across the non-linked Outer Isles of Orkney</b>
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<b>Abstract</b>	<i>200 words max</i>
Analysis of a Subjective Wellbeing dataset for Orkney’s non-linked islands (connection by plane or ferry only to Orkney Mainland) with the objective of identifying potential drivers of food & fuel insecurity in the remote rural Outer Isles communities.	
<b>Keywords</b>	Food Security, Fuel Poverty, Food Poverty, Rural, Rural Development, Poverty Analysis, Well Being
<b>JEL Code</b>	Regional Economic Activity: Growth, Development, Environmental Issues, and Changes <b>R11</b> General Welfare; Well-Being <b>I310</b>
<b>Introduction</b>	<i>100 – 250 words</i>
<p>This study focuses on a set of survey results regarding Subjective Wellbeing collected on Orkney’s Outer Isles. A survey was conducted in May 2021 to map residents' health, economic and social wellbeing across 13 non-linked islands in Orkney. From a population of roughly 2,500, a total of 816 responses were received.</p> <p>An extensive review of available literature and secondary data pertaining to the status of local food security and fuel security in Orkney’s Outer Isles was conducted prior to the dataset being subjected to regression modelling. Modelling was employed to establish potential drivers of food and fuel insecurity within the Outer Isles communities.</p> <p>Following the completion of the regression analysis, this study conducted interviews with local stakeholders and service providers. The interviews were designed to assess the quality of, and provide context to, the results of this study.</p>	
<b>Methodology</b>	<i>100 – 250 words</i>
<p>The main methodology employed for the analysis of this dataset is probit regression modelling. Two models were developed simultaneously on two dependent variables. The two variables focus on the risk of an individual in the Outer Isles being (1) food insecure and (2) fuel insecure in the preceding twelve months of the survey. The two models include the same independent variables from across various sections of the survey, chosen for interest to policymakers. By developing two models simultaneously and presenting the results side-by-side, the differences each selected independent variable has, in terms of sign and effect, on food and fuel insecurity are presented.</p>	
<b>Results</b>	<i>100 – 250 words</i>
<p>The results from the models suggest: that regarding “Heat or Eat”, individuals are likelier to cut back on heating in order to eat when faced with financial difficulty. Analysis showed that those facing fuel insecurity in the Outer Isles have a 50% chance of doing so independently of facing food insecurity at the same time. Yet, when an individual is experiencing food</p>	

insecurity in the Outer Isles, they are very likely to be experiencing fuel insecurity simultaneously.

Overall, socioeconomic factors proved to be the main determinants to Outer Isles residents facing a risk of food or fuel insecurity. Being unable to afford unexpected bills and worrying about money in general were found to be statistically significant to facing both fuel and food insecurity.

It was found that the stigma present around accessing emergency support, and the lack of awareness of how/where to access the support for Outer Isles residents was statistically significant and the analysis has shown that many residents do not know where to access support if they need it, and may be too embarrassed to do so.

It was also found in this study that difficulty in affording transport to Orkney Mainland is a prevalent factor for survey respondents facing food and fuel insecurity.

### **Discussion and Conclusion**

**100 – 250 words**

Following on from the presentation of the studies' results, two interviews were held with stakeholders to provide context to the results.

The study concludes with recommendations based on the analysis of survey results and interviews held with stakeholders in Orkney. These include, improving access to ferry services for young, old and disabled people - if the Outer Isles ferry service was considered on par with Mainland bus services in terms of equal access, this may bring about reductions in the number of people at risk of facing food and fuel insecurity.

When considering housing stock in the Outer Isles, secondary data reviews and stakeholder interviews revealed that, properties in the Outer Isles are expensive to look after and maintain, often have high rent and are very energy inefficient – in essence creating a “perfect storm” of variables driving people into fuel insecurity. This study recommends the local authority and national government look to improve the housing stock and energy efficiency of Orkney Isles homes.

Other recommendations include: increasing awareness of emergency support available to individuals and begin to reduce the stigma surrounding access to support and, service providers in Orkney should look to build further capacity for their frontline and community workers to help support those in need of emergency or financial assistance.