

Spatio-Temporal Income Dynamics in Scotland

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ABSTRACT

This paper focuses on individual income disparities in Scotland. The Scottish Government uses two measures of income inequality, the Palma Ratio and the Gini Coefficient. Both indicators show that income inequalities are very time persistent. The Palma Ratio (of the total income of the top 10 percent of the population and the bottom 40 percent of the population) was 1.15 in 2014/15 compared to 1.14 in 1994/95. The Gini Coefficient measures how equally income is distributed across the whole population and its value ranges between 0 and 1, with higher values indicating more unequal distributions. Its value was 0.31 in 2014/15 and in 1994/95.

While there has been considerable research on reasons underlying national and regional income inequalities in the UK (e.g. Duranton and Monastiriotis 2002, Monastiriotis, 2002, Bachtler, 2004, Monastiriotis 2006, Roberts, 2004, Taylor, 2006), there has been very little research on the causes of intra-regional disparities in income levels. This is surprising because evidence shows that income inequalities have increased more because of within-region inequalities than between-region inequalities (Dickey, 2007).

I investigate income patterns and change across space and time using longitudinal microdata for Scotland based on the Understanding Society - The UK Household Longitudinal Study (UKHLS), between 2009 and 2015. The UKHLS provides a unique source of longitudinal microdata on a wide range of topics and contains up to 5 times more households than the previous British Household Panel Survey (BHPS). To the best of my knowledge this is the first time UKHLS data have been used to look at these issues in Scotland. The research addresses important identification issues relating to self-selection and reverse causality between place-specific characteristics and individual outcomes by combining sophisticated modelling techniques with large-scale longitudinal microdata.

I estimate income models to measure the relative importance of individual's characteristics (including family background) and contextual characteristics of the place(s) where they live/work. I consider multiple geographies simultaneously to capture place-effects at the level of neighbourhoods, labour markets, and wider regional economies. A better understanding of the relative importance of people- and place-effects can inform policy-makers about the potential outcomes of place-based policies. The findings indicate that once we account of self-selection, individual characteristics and family background explain a greater deal of variation in income levels than geographical context. The results also suggest that the choice of geography matters, and that administrative units are less fit-for-purpose.

Keywords: *income inequalities, microdata, longitudinal analysis, Scotland*

JEL Classification: *R11, R12, J24, J31*

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