

# Socio-Economic Performance in Rural Scotland



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## Introduction

Scottish Government has set certain strategic objectives in its National Performance Framework (NPF):

- **Wealthier and Fairer:** we live in a Scotland that is the most attractive place for doing business in Europe; we realise our full economic potential with more and better employment opportunities for our people
- **Smarter:** we are better educated, more skilled and more successful, renowned for our research and innovation; we have improved the life chances for children, young people and families at risk
- **Healthier:** we live longer, healthier lives; we have tackled the significant inequalities in Scottish society
- **Safer and Stronger:** we live our lives safe from crime, disorder and danger; we have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others.

This poster explores the scope for developing a composite indicator of socio-economic performance (SEP) that connects directly to the National Performance Framework.

Daniel Kahneman (2011, p. 226) in "Thinking Fast and Slow" wrote 'Simple equally weighted formulas based on existing statistics or on common sense are often very good predictors of significant outcomes.'

## Methods

Our aim was to develop a multi-component indicator of socio-economic performance and map its value for the 6500+ data zones in Scotland. The Scottish Neighbourhood Statistics (SNS) is a unique dataset that provides information for each of more than 6500 geo-referenced data zones within Scotland.

We can link SNS data with NPF criteria:

- Stronger: Population change 1991-2001
- Safer: Reported crime cases (no. per 10,000 inhabitants)
- Wealthier-1: Median income
- Wealthier-2: Proportion of working age unemployed
- Fairer: SIMD overall score
- Smarter: Ratio of observed no. of working age people with no qualifications to expected no.
- Healthier: Comparative illness factor

### Constructing the Composite Index

In order to construct an aggregate index of performance from the data zone values for key variables with different units, these values were ranked for each key variable, with high rank (near 6500) meaning a positive contribution to SEP, and a low one (towards 1) meaning poor performance in that respect. For population change and median income, a higher key variable value means a more desirable outcome, while, for the other key variables, a lower value means a more desirable outcome (a higher rank). The two ranks for the key variables 'Wealthier-1' and 'Wealthier-2' were then averaged, and the 6 components 'stronger', 'safer', 'wealthier', 'fairer', 'smarter' and 'healthier' averaged with equal weights to construct an aggregate SEP Index for each data zone.

## Results

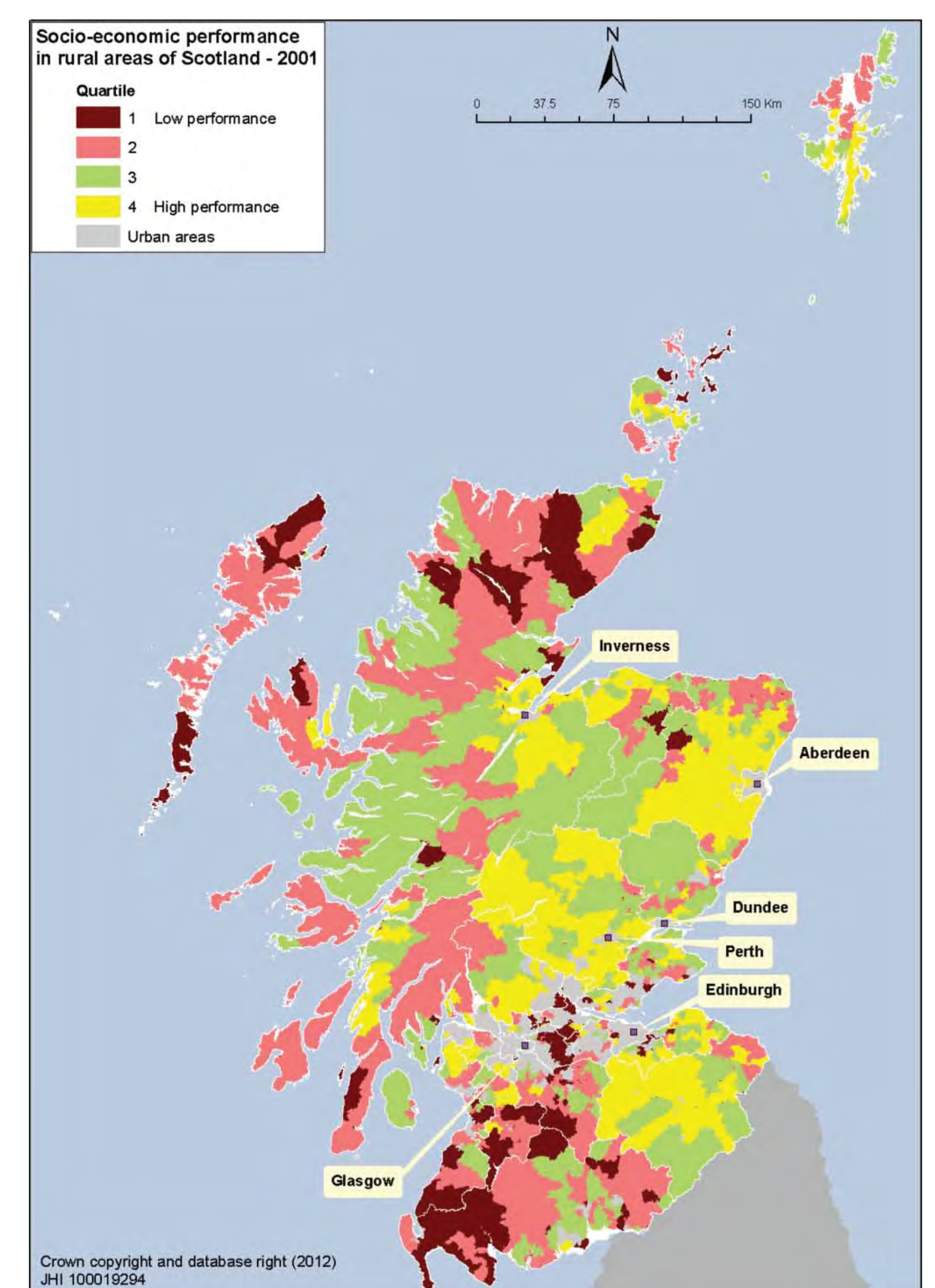
Edinburgh and Aberdeen have large and prosperous hinterlands to their south and west, respectively. Which shapes their indices.

The major cities of Glasgow and Dundee lack such prosperous hinterlands, with the exception of a small region north of Glasgow.

There are striking differences between the Northern Isles, where Shetland has benefited from North Sea oil facilities and Orkney has a thriving farming sector, and the Western Isles, which are equally remote but score poorly on the composite index.

Rural data zones perform better than urban (large, other or small town) ones.

SEP is generally better for all components in accessible areas. Location in this sense seems to be the most important factor. Stronger is negatively correlated to most of the other key variables. In other words, rapid population growth is generally associated with an area which is Safer (less crime), Wealthier (higher income and less unemployment), Fairer (less multiple deprivation), Smarter (fewer people without qualifications) and Healthier. Of course, the direction of any causal relationship is not known.



## Conclusions

- The index developed in this paper has the merits of relative simplicity, both in structure (a simple unweighted average of seven rankings), and in acquiring and analysing the necessary data.
- The index may assist in policy assessment. It pinpoints the socioeconomically disadvantaged areas of rural Scotland and highlights the difficulties of western Dumfries and Galloway.
- When equivalent data from the 2011 population census become available, along with more recent SNS data, it is planned to repeat and extend the analysis described above, with a more longitudinal approach, e.g. using data both for levels (in 2011 or the most recent available year) and for changes (e.g. 2001–2011).