Can we measure wellbeing at the community scale? Identifying indicators for Scotland

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Project context

This note describes research undertaken as part of the Scottish Government RESAS Strategic Research Programme (2016-2021) into place-based policy and rural Scotland. This wider project aims to explain the inequalities in socio-economic outcomes in Scotland's rural areas and small towns, and consider the effectiveness of policy responses to them. As part of this work, it was necessary to understand how different forms of wellbeing can be measured at the level of small areas. This note presents a) a short summary of the sources of datasets which can measure aspects of wellbeing; b) a description of the indicators which were identified after an assessment of data availability and suitability; and c) an analysis of regional differences in wellbeing, using these indicators.

Key finding

Creating strong indicators to measure several 'dimensions' of wellbeing for small areas is challenging. The types of wellbeing which are most important, and the major issues affecting rural areas and small towns in Scotland, should be identified and prioritised for measurement. The indicators described in this report require further refinement and improvement, but reveal considerable differences across rural areas, small towns and urban regions.

What types of wellbeing are there?

It is recognised that economic statistics, such as gross domestic product (GDP), are inadequate measures of wellbeing[1]. A number of frameworks have been developed to summarise the diverse elements which contribute to wellbeing. These include the eleven dimensions of wellbeing defined by the Organisation for Economic Co-operation and Development (OECD), formed of three economic characteristics (e.g. income) and eight which correspond to quality of life (e.g. health, education and the environment)[2]. In Scotland, the Government's National Performance Framework includes eleven 'National Outcomes'[3], while Eurostat's 'Quality of life indicators' publication uses nine domains[4].

In this research, the OECD's dimensions of wellbeing as described in their *Better Life Index* and *Regions at a Glance* outputs[5] were assessed and combined. The derived dimensions are: *income and wealth*; *jobs and earnings*; *housing*; *health and health status*; *education and skills*; *access to services*; *safety*; *environment*; *civic engagement and governance, civil engagement for developing regulations*; *life satisfaction*; *community*; and *work and life (balance)*. Whether this wide range of topics could be measured at the level of small areas in Scotland, by appropriate indicators, formed a key question in this work. These dimensions of wellbeing cover several concepts relevant to personal judgements and experiences of living in a place. The terms 'wellbeing' and '*socio-economic performance*' have different meanings; however, the two concepts overlap, and some indicators reflect both.

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What data is available?

A large amount of social and economic data is released publicly by the Scottish and UK Governments, and by other public sector bodies. This is partly driven by the principles and benefits of 'open data', increased public rights to access data, and improvements to web-based services. However, not all published datasets are available for small areas, or are relevant to wellbeing.

For this research, a number of online resources (Figure 1) were searched for datasets and resources with data available for small geographical areas ('2011' Data Zones[6]), or where data were in a form (such as locations) which could be used to create Data Zone-level figures. For each dataset which was identified, the most relevant dimension of wellbeing (out of the twelve listed above) was noted, based on researcher judgement. This was not possible in all cases, as some datasets were not thematically linked to types of wellbeing, or were not types of social or economic outcomes.

Thus, 180 datasets were found which contained Data Zone-level information, 120 of which were linked to types of wellbeing. This reflects data availability in April-June 2018.

Figure 1: Summary of useful resources.
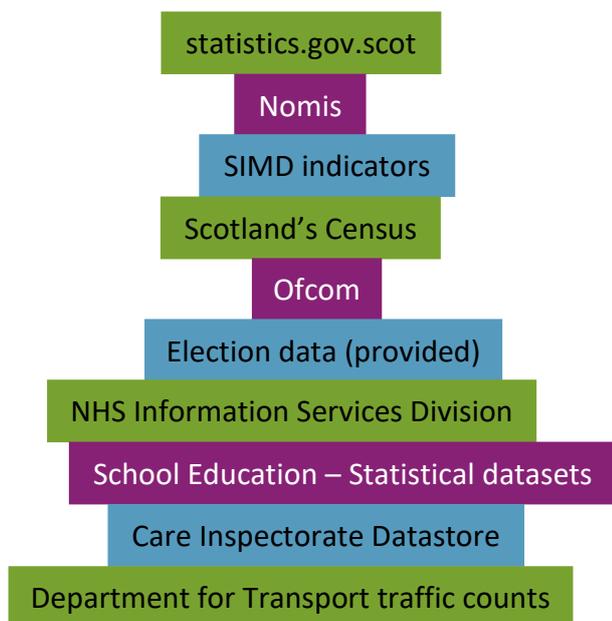
Converting raw data to indicators

The next stage was a more detailed quality assessment of the datasets which were relevant to types of wellbeing, and which contained 'fine resolution' data for Data Zones, in order to create precise and meaningful indicators.

In addition to these two criteria, datasets were judged on whether *data was available for recent years (2016-18)*, and whether *data for c. 2011 existed* which could be used to calculate change over time. Next, an assessment was made of whether datasets were *thematically related to indicators used by the OECD to measure wellbeing* (these indicators were derived from those in the OECD outputs mentioned above). Finally, a suggested indicator (or indicators) which could be calculated was identified for most of the datasets. This indicator was then judged on *ease of calculation for different geographical levels*, from Data Zones to larger regions: indicators which were percentages, calculable from available numerators and denominators, were most suitable. A few indicators were flagged as being *unsuitable for rural areas and small towns* (i.e. the percentage of people living near a derelict site, and some deprivation indicators).

For the purposes of the data analysis described below, indicators were selected to represent the twelve dimensions of wellbeing (one indicator for each: Table 1). Most indicators met a high number of the selection criteria. A majority of the indicators were relatively up to date. Additionally, some indicators were calculated from other types of data, such as school locations, traffic monitoring points, and data for other types of area (Output Areas and wards). It was found that data availability from existing numerical datasets was low for some types of wellbeing.

Table 1: Indicators selected for data analysis

Dimension of wellbeing	Indicator (latest data)
Income and wealth	Median household income (estimate, £/week), 2014
Jobs and earnings	Proportion of population aged 16-64 claiming Jobseeker's Allowance (%), June 2018
Housing	Proportion of dwellings in Council Tax bands A-C (%), 2017
Health and health status	Proportion of single live births which are of low birthweight (%), 2015-17
Education and skills	School attendance rate (primary and secondary) (%), 2016-17
Access to services	Proportion of premises with superfast broadband available (%), 2018
Safety	Crime rate (per 10,000 people), 2014-15
Environment	Average annual daily traffic flow for all motor vehicles (number of vehicles), 2017
Life satisfaction	Proportion of population being prescribed drugs for anxiety, depression or psychosis (%), 2014-15
Community	Proportion of dwellings which are second homes or which are vacant (%), 2017
Work and Life	Proportion of employed people aged 16-74 working over 48 hours a week (%), 2011
Civic engagement and governance, civil engagement for developing regulations	Council election turnout (%), 2017

Some indicators were recalculated (with more recent data) and/or revised following the selection.

How does wellbeing vary across Scotland? An analysis of regional differences

We can use the indicators listed above to assess regional differences in wellbeing. The Scottish Government's Urban Rural Classification defines regions based on settlement size and remoteness from urban areas, and the 2016 version[7] was used to analyse regional inequalities.

A visualisation of regional values for the twelve indicators is shown in Figure 2. For each indicator, the eight values for the regions in the Urban Rural Classification were ranked, from best to poorest performance. The strengths and weaknesses of the eight regions are very different. As an example, *large urban areas* have excellent access to services (over 97% of premises have superfast broadband), and a relatively small proportion (c. 10%) of employed residents work long hours. However, for other variables (Jobseekers' Allowance claimants, low weight births, crime rate, motor traffic and election turnout), this region performed relatively poorly.

By contrast, *accessible rural areas* show economic strength: the highest average household income of any region, and a low claimant rate for Jobseekers' Allowance. The region also shows very good performance on indicators for health, education/skills and life satisfaction. However, housing cost may be an issue, as only c. 46% of dwellings were in council tax bands A-C. Also, access to high speed broadband is much poorer in accessible rural areas (available in less than seven out of ten premises) than it is in accessible small towns and urban areas, where over nine out of ten premises have access.

Remoter rural areas perform very well for several indicators, including those related to quality of life: safety, environmental quality and life satisfaction, and also political engagement. Remote rural areas have the second highest household income of any region, and figures for jobs and earnings and education and skills across remoter rural areas are strong, relative to other regions. However, it is clear that high speed internet access is limited, a relatively high proportion of dwellings are second homes or vacant, and a relatively large proportion of employed people work long hours.

Remoter small towns show more negative outcomes for some indicators, including low incomes, and somewhat weaker performance on quality of life indicators. Very remote small towns had the second highest crime rate in Scotland, and the second highest prescription rate for mental health conditions. More positively, a relatively high proportion of housing is of low cost.

Figure 2: Comparison of indicator scores for eight regions in Scotland.

Dimension of wellbeing	Large Urban Areas	Other Urban Areas	Access. Small Towns	Remote Small Towns	Very Remote Small Towns	Access. Rural Areas	Remote Rural Areas	Very Remote Rural Areas
Income and wealth								
Jobs and earnings								
Housing								
Health								
Education and skills								
Access to services								
Safety								
Environment								
Life satisfaction								
Community								
Work and Life								
Civic engagement								

For each indicator, the eight regional values were ranked from best performance (dark green) to poorest performance (dark purple). The colour scheme[8] is not based on exact scores.

Reflections

- Although access to socio-economic data has grown significantly, there is no single resource providing high resolution data (for small areas) which is relevant to all aspects of wellbeing.
- In Scotland, it is relatively straightforward to access datasets that can be analysed at the small area (Data Zone) level for economic activity, and aspects of health, education and services. Data availability for environmental and personal wellbeing is far poorer, and so proxy indicators to measure these concepts are harder to produce and are weaker.
- Selecting appropriate indicators is a process which requires input from policymakers, researchers and practitioners. There is a clear need to establish priority areas for indicator selection and data collection: 'trying to measure everything' is unhelpful.

- The analysis using the set of twelve indicators shows that the 'strengths' and 'weaknesses' of these regions vary considerably. There are considerable differences in wellbeing across the country.

The resources and indicators described above contribute to the evidence base on variation in wellbeing and socio-economic development across Scotland. Future work must involve expert stakeholders, to gain an understanding of what the priority issues, and types of wellbeing, are for rural areas and small towns. This should be used to focus future data collection, including indicator selection and evidence from qualitative and mixed methods.