Small Area Income Estimates: Plans for future production and development

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1 . Introduction

In May 2016 the UK Statistics Authority published their assessment report of the 2011 to 2012 Small Area Income Estimates (SAIE). This report assessed the compliance of these National Statistics with the Code of Practice for Official Statistics and described 6 requirements to be undertaken by us, the Office for National Statistics, to retain their National Statistics accreditation (Appendix A).

Improvements to the SAIE are also needed to help meet the recommendations of the independent review of UK economic statistics (the Bean Review) and to increase the support for local decision making powers being devolved and decentralised.

We have begun work on fulfilling the requirements by, for example, making the data for the 2011 to 2012 SAIE available in an open format (CSV files) to aid the onward use of the statistics. We are also working to meet the other requirements outlined in the report and communicating the progress made regularly with users of the statistics.

This document supports our work to meet requirement 1 of the assessment report which is split into the following two parts:

a) Develop and publish an integrated engagement strategy, drawing together the variety of activities with users across the relevant statistical teams in ONS into a coherent plan.

b) Publish its development plans for the small area estimation of income, including median income estimates and availability at lower super output area level, and provide regular updates to users about its progress.

The first part of this document briefly describes the main channels of communication we will use to engage with users of the SAIE and other related statistics we publish (such as Regional Gross Disposable Income). The second part describes our plans to develop and improve the SAIE in terms of both the method currently used to produce the statistics and possible new methods and data sources to produce estimates of income for subnational geographies.

2 . Engagement strategy

Our Public Policy Division will have primary responsibility for engaging with users of the Small Area Income Estimates, and we will mainly use a combination of established communication channels for these activities.

Updates on developments

The email address better.info@ons.gsi.gov.uk is a central point of contact for users wishing to make enquires about small area data and statistics. We will use this email address to send updates about SAIE developments to a list of users who have requested to receive these updates. If you would like to receive updates about SAIE developments and publications, email us.

Stats User Net

[Stats User Net](#) is a community-based forum website hosted by the Royal Statistical Society (RSS) designed to stimulate engagement between and within users and producers of official statistics. It is open to anyone with an interest in statistics - both people who are expert in using statistical products and datasets, and non-experts who are interested to find out more about statistics, and connect with the producers of statistics on their topic of interest. Many of the communities on this site are directly related to Statistics User Forum User Groups, and allow those user groups to liaise and share information online. Registered members of Stats User Net can join any user group.

We will post all updates on SAIE developments and publications on the following user groups:

1. [Sub-National Statistics Network](#)

2. [Household Income and Spending Statistics](#)

3. [Poverty and Inequality Statistics](#)

Some updates will also be posted to additional user groups where applicable, for example posts about the provision of open data will also be made on the Open Data (NODUG) User Group.

Stats User Net is also to communicate information about our regional gross disposable household income (GDHI) estimates, which are available at various subnational geographic levels. Follow the above user groups to keep up to date on both SAIE and GDHI products. For more information about Regional GDHI, email regionalaccounts@ons.gsi.gov.uk.

Knowledgehub

The [Knowledgehub](#) is a collaborative public service networking and information sharing website which, like Stats User Net, allows registered members to receive updates from topic specific groups known as hub groups.

We will post all updates on SAIE developments and publications on the following user groups:

1. [LARIA - Local Area Research and Intelligence Association](#)

2. [London Social Exclusion Data Forum](#)

3. [ONS Regional and Local Statistics](#)

Twitter

Our main social media platform is Twitter ([@ons](#)), which we will use to announce new SAIE and Regional GDHI publications and formal user consultations.

ONS website

The new ONS website will be used as the main platform for disseminating updates and new [SAIE products](#). We will work to provide these in a consistent format and location to help aid navigation of SAIE products.

These communication channels will be used to inform users of the SAIE about our work to meet part B of the assessment report's first requirement, the plans for which are described below in terms of what we will aim to achieve in 2016 and our longer term aspirations.

3 . 2016 development plans

Following the May 2016 UK Statistics Authority assessment report of the 2011 to 2012 SAIE we made a commitment to publish our ongoing development plans. The following information represents the first of these updates and the user engagement strategy described above will be used to inform users about these developments as the work progresses. Our work to meet the other requirements highlighted in the assessment report will focus on aspects of quality and comparability, and will be shared using the communication channels described above.

2011 to 2012 households in poverty estimates

Following the publication of the 2011 to 2012 small area income estimates, we will publish the accompanying households in poverty estimates by October 2016. These statistics are classified as "experimental statistics", and are designed to supplement the SAIE by providing estimates of the percentage of households living in poverty for middle layer super output areas (MSOAs) in England and Wales. In this case poverty is defined as a household income of below 60% of the UK median weekly household income.

2013 to 2014 small area income estimates

In December 2016, the 2013 to 2014 small area income estimates (SAIE) will be published. These will include model-based estimates of four measures of mean weekly household income for MSOAs in England and Wales for the 2013 to 2014 financial year. These estimates will use the same model-based method and data sources as for the current (2011 to 2012) SAIE.

Estimating the median and distribution of household income

Following feedback from users of the SAIE, we are developing a new model-based method of estimating weekly household income (see section 4.3 of the Methodology Advisory Committee papers), known as the Empirical Best Predictor (EBP) method. This method enables the calculation of median income and the distribution of household income at the MSOA level. Estimates of median income are particularly useful because they are less susceptible than mean estimates to inflation by a relatively small number of households with large incomes. In addition, the availability of income for the highest and lowest 10% of the population would provide information on the disparity of income within each MSOA.

The Methodology Advisory Committee paper focused on an initial application of the EBP method to 2001 data and focused on only two regions of England (South East and North West). Work is currently in progress to provide 2011 estimates for all MSOAs in England and Wales. A disadvantage of the EBP approach is that it relies upon census data in addition to survey data. As a consequence, the method can currently only be implemented for census years. A further longer term aim is to assess the possibility of using administrative data sources to provide estimates in non-census years.

Estimating income using administrative data

Around the same time as the 2013 to 2014 SAIE in December 2016, the ONS Census Transformation Programme research outputs will include income distributions for local authorities. These outputs will be calculated directly from a subset of administrative data on personal level income, tax and benefit information from Department for Work and Pensions and HM Revenue and Customs. The research outputs are not official statistics. At this stage the outputs will be limited to PAYE and benefits data so a number of components of income will be missing from the research output, for example, self-assessment.

4 . Longer-term development plans

Making more use of administrative data in estimating income

Over time the research outputs will be expanded in coverage and geographical breakdown. Ultimately, the vision is to be able to produce multivariate outputs for small areas, such as income and ethnicity, by linking together census, survey and administrative data. This is subject to data access and quality.

Making use of the administrative data through model-based methods (which strengthen the survey estimates) will be compared with the more direct approach of deriving estimates of household income using the administrative data only. We will report the results of these at each stage and will seek feedback on any resulting outputs.

Use of SAIE in UK Regional Accounts

The regional accounts include a measure of gross disposable household income (GDHI), which provides annual estimates of the amount of money all households in an area have left over for spending or saving, after income redistribution effects such as taxes and benefits. Estimates are also provided on a per capita basis, giving the average disposable income for an individual within the region, but no estimates are produced for actual households or family units.

Currently regional GDHI estimates are provided for the top three levels of the European NUTS geography (Nomenclature of Units for Territorial Statistics), but a project has recently started to develop methods to break the data down to smaller areas, with the aim of providing the capability to produce GDHI for any user-specified area of interest.

The approach that is planned will be a two-stage disaggregation. First we will break the data down to the local authority level, by allocating each of the major components of the household account using the most appropriate data source that is available. Second, we hope to break the data down to output area level, using administrative data on income, taxes and benefits.

The development of SAIE has the potential to provide a really useful data source to inform this disaggregation of the GDHI components. As they are likely to use many of the same administrative data, the two datasets should be highly coherent, although users will need to be aware of the differences in coverage and definitions that apply.

Together these two developments will provide users with a good range of income statistics for smaller areas. The GDHI estimates will provide information on the economic position of households, within a national accounts framework. The SAIE will provide greater detail of the income distribution of households within an area.

We will provide updates on the progress made towards producing new SAIE products. If you would like to provide any feedback about the developments described here or have any suggestions for future income statistics, please do get in touch.

5. Appendix A

Requirements of the SAIE outlined in the UK Statistics Authority's assessment report

Finding	Requirement	
ONS has undertaken a number of engagement activities. However, it lacks a coherent engagement plan and does not make its development activities clear to users. ONS should:	1	a) Develop and publish an integrated engagement strategy, drawing together the variety of activities with users across the relevant statistical teams in ONS into a coherent plan. b) Publish its development plans for the small area estimation of income, including median income estimates and availability at lower super output area level, and provide regular updates to users about its progress.
No one business area in ONS is responsible for the production of SAIE, leading to a lack of prioritisation for the production of the estimates. ONS should:	2	a) Ensure that its statistical planning takes account of users' needs, particularly in relation to the timely publication of SAIE, and is transparent about priority setting, explaining the reasons for its choices. b) Ensure that the resources allocated to the production of SAIE are sufficient to maximise the public value of the statistics
A user identified implausible average income estimates in parts of London. ONS should:	3	Explore the concerns raised about the quality of the estimates for London areas, and publish the findings.
ONS does not provide sufficient explanation of the assurance arrangements of the administrative data used to produce SAIE. ONS should:	4	Outline the data assurance arrangements for the administrative data used to produce SAIE, making clear why it regards the data as sufficiently robust for this purpose. As part of meeting this requirement, ONS should consider the Authority's Report Quality Assurance of Administrative Data.
ONS does not make clear whether there are estimates for the other UK countries, nor explain the coherence with similar statistics such as the Indices of Deprivation. ONS should:	5	Provide information about the comparability and coherence of SAIE with other similar statistics and clarify the distinctive purpose that SAIE serve.
ONS published SAIE in a spreadsheet only, which is not machine-readable. It also does not provide the estimates through the Neighbourhood Statistics website. ONS should:	6	Publish SAIE in an open format that equates to at least a three-star level under the Five Star Scheme. In meeting this requirement, we suggest that ONS consider ways of encouraging the wider use of SAIE by making the statistics available through other means such as Nomis.