

**Royal Statistical Society
Social Statistics Section and Statistics Users Forum**

**EXPLORING THE USE AND VALUE OF THE
ONS OUTPUT AREA CLASSIFICATION**

**An afternoon seminar about using the area classification to
understand the UK at small area level**

A repeat of the seminar held on 2 November 2006

Monday 2 April 2007

The Output Area classification (OAC) distills key results from the 2001 Census to provide a simple measure of the character, and the similarities and differences of local areas across the UK. It was created with the same well established methods as the related ONS classifications of local authorities and wards. Like those it is freely available for all to use, and complements commercially available classifications.

The seminar brings together experts to help those in the public and private sectors who use or would like to use OAC for profiling populations, structuring other data, or targeting resources. There will be an emphasis on practical steps and support for applications.

It was first held on 2 November 2006, and, after support from the participants, an OAC User Group was inaugurated. The November seminar was, however, quite heavily over subscribed, and is being repeated to give those who were unable to obtain places an opportunity to attend, along with all others with an interest

Programme, speakers, and background information

Themes for the afternoon will be

- creating the classification: objectives
- presentation: visualisation and access
- uses: effective applications
- issues and solutions

- getting involved with the OAC User Group

Speakers include Dr Dan Vickers (University of Sheffield) who developed OAC whilst at the University of Leeds, Professor Martin Callingham of Birkbeck College, and Alan Smith from ONS Geography.

The **seminar programme** is below.

A brief introduction to area classifications, OAC, and the OAC User Group follows the seminar programme below. IT is recommended for those new or relatively new to area classification or OAC, as speakers will assume that participants have an initial familiarity with the subject.

Date and time

Monday 2 April 2007, starting at 14.00 (registration and coffee from 13.30) and finishing around 16.30.

Place

Royal Statistical Society, 12 Errol Street, London EC1Y BLX

Directions to the RSS are on the About RSS > Discover More > Finding Errol Street page

<http://www.rss.org.uk/main.asp?page=1759>

Bookings

The seminar is free of charge, but places are limited and you should register as soon as possible: please email

Martin.Robson@lbhf.gov.uk who will confirm your place.

Further information

Please contact: Chris Denham chrisdenham@waitrose.com or telephone 92392 413766. The seminar will not cover the details of the statistical methods of area classification, but the organisers would welcome interest in a further seminar on methods.

Programme

EXPLORING THE USE AND VALUE OF THE ONS OUTPUT AREA CLASSIFICATION

**An afternoon seminar about using the area classification to
understand the UK at small area level**

Monday 2 April 2007. The Council Chamber, RSS, 12 Errol
Street, London EC1 BLX

A repeat of the seminar held at the RSS on 2 November 2006

13.30 Registration and coffee

14.00 Chair's introduction - opportunities with OAC - Chris
Denham

14.20 'Open geodemographics: the creation of the Output Area
classification', Dr Dan Vickers, University of Sheffield

15.00 'Visualising area classifications', Alistair Calder, ONS

15.30 'The application and development of OAC', Professor
Martin Callingham, Birkbeck College

16.00 Speakers panel - questions and discussion - The OAC
User Group - what it does, and getting involved

16.30 (approximately) Close of seminar - room remains
available for informal discussion.

Copies of slide presentations will be available on the Web
after the seminar.

Speakers: information

Chris Denham - formerly Head of 2001 Census Output and
Geography, co-author of the report on the 1991 classification of
local authorities, and advisor on OAC.

Dr Dan Vickers - lecturer in Social and Spatial Inequalities at the Department of Geography, University of Sheffield. He created OAC on behalf of ONS. More information on Dan's research interests:

http://www.sheffield.ac.uk/geography/staff/vickers_dan/index.html

Alan Smith - Geographical Information (GI) Strategy Manager ONS, has a special interest in data visualisation using animation and interactivity, for example through the use of SVG (scaleable vector graphics) to make the ONS area classifications accessible. More information on geography at ONS:

<http://www.statistics.gov.uk/geography/default.asp>

Professor Martin Callingham - has used geodemographic systems for over 25 years. Formerly the Research Director of Whitbread, he is currently a Visiting Professor at Birkbeck College, University of London, where he is researching new ways of classifying areas.

An introduction to areas classification, OAC, and the OAC User Group

Prepared for the RSS/SUF seminar 'Exploring the use and value of the ONS Output Area Classification'

The Output Area classification (OAC) distills key results from the 2001 Census for the whole of the UK to provide a simple measure of the character and the similarities and differences of local areas across the UK. It was created for the Office of National Statistics (ONS) by Dr Dan Vickers using the same well established methods as the related classifications of local authorities and wards.

Like those it is freely available from ONS and other sources for all to use, and complements commercially available classifications. Among the main uses for OAC are profiling populations, structuring other data, and the targeting of resources.

Help with use

There has been no single place on the web which provides simple guidance on area classification - the statistical concepts and interpretation, strengths and limitations, differences by geographical scale, or about the main steps in application. There is also the question of choice between a classification which can be purchased in ready made packages or one like OAC which is in the public domain but usually requires more input from the user.

The **OAC User Group** has been set up to provide help to those who use OAC or would like to use it, and to represent their interests. The Group is focused around the methods and output of area classification, but OAC is distinctive as it is in the public domain - a basis for 'open geodemographics' - encouraging interchanges between sectors on issues ranging from the underlying statistical methodology to interactive graphics for effective presentation.

The User Group aims to provide opportunities to share experience and build expertise, and to help advances to be made through new methods and applications, operating through open meetings, a self help network, and a dedicated website, enabling it to represent the interests of the OAC user community. The Group is being administered in its initial phase by a steering group drawn from the academic, commercial and public sectors, with representation and support from ONS.

Area classification and geodemographics

Helpful background information can be found in print. A good general introduction to geodemographics is provided by Peter Sleight in his chapter on 'Geodemographic classifications and analysis' in the Market Research Society 'A guide to the 2001 Census' (TSO, 2004), which also reviews the commercially available small area classifications. The 1991 Census report on the 'ONS classification of local and health authorities...' by Merryl Wallace and Chris Denham (HMSO, 1996) covers the background, method, and results of a forerunner to OAC,

although it is on a very different geographical level.

For more background on geodemographics - much of which is based on small area classifications - the Market Research Society 'geodemographic knowledge data base' is a rich source of links and contacts at: <http://geodemographics.org.uk/>

2001 Census based classifications and OAC

A first step in looking at and using 2001 Census based area classifications is to visit the ONS website at:

http://www.statistics.gov.uk/about/methodology_by_theme/area_classification/

particularly to read about the classifications and to see how interactive maps show the telling patterns which emerged at the higher geographical levels, and are also a way of accessing further key information. Profiles give the distinctive characteristics of each cluster within the classifications.

OAC itself is comprehensively introduced in an article by Dan Vickers and Phil Rees in the ONS journal Population Trends at http://www.statistics.gov.uk/downloads/theme_population/PT125_15-29.pdf

which covers the creation of the classification, and the naming and visualisation of the clusters. It has UK maps of the seven 'super groups', together with a map showing the pattern of super groups in West Yorkshire, which illustrate the fine grain of the classification.

There are not yet any readily accessible examples of applications of OAC on the web, but one of the prime purposes of the OAC User Group is the exchange of information on applications.

Output Area geography

The 2001 Census Output Areas were specifically created for statistical purposes using an objective and automated method which delivered areas with populations quite tightly distributed around a population of 125 households. This reduced the effect

of variation in population size on the classification, which may be an issue when classifying the variably sized populations of wards or when Census Enumeration Districts were used in the past. The files of Output Area boundaries are available at minimal cost, but are supplied by ONS separately from OAC. More information on 2001 Census geography and Output Areas, and view maps of Output Areas, at <http://www.statistics.gov.uk/census2001/op12.asp>.

Accessing OAC

OAC is available without charge from four different suppliers. All supply is under very straightforward and unrestrictive terms and conditions. Each source is geared to some extent to different user sectors, although the same core output is supplied by all.

ONS

A copy of OAC is housed on the ONS/National Statistics website at

http://www.statistics.gov.uk/about/methodology_by_theme/area_classification/oa/default.asp

which includes the files with cluster membership and descriptive information, plus a detailed report on the creation of the classification. OAC is also available, free of charge, on a CD-ROM from Neighbourhood Statistics:
NESSBAU@ons.gsi.gov.uk.

University of Sheffield

Dan Vickers has set up a site at

http://www.sasi.group.shef.ac.uk/area_classification/index.html

to give users access to OAC data sets and information about its creation, with additional information to aid use. In addition it provides names for clusters in OAC, with pen portraits and photographs to help interpretation. It also has UK maps showing the distributions of Output Areas in particular clusters.

CASWEB

Further value added information is available within the academic community. OAC can be added to any Census table via the CASWEB service at <http://census.ac.uk/casweb> and is available with digital boundaries via the Borders service at <http://www.hw.ac.uk/library/ukborder.html>

SASPAC

OAC is part of the package available to SASPAC members, for which there are annual fees although not for OAC as such.
<http://www.saspac.org/>

February 2007