

User Engagement on a new United Kingdom Output Area Classification

Summary of Responses

May 2012

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Summary

The Office for National Statistics (ONS) and University College London (UCL) conducted a user engagement, which ran from 17 February 2012 to 30 March 2012, on the creation of a new Output Area Classification using 2011 Census data.

A total of 38 responses were received for this user engagement. Half of the responses came from local authorities, but there were also responses from central government, primary care trusts, other public sector organisations, consultancies, commercial organisations and academia. For a listing of the respondents, please see the appendix.

The responses did vary by stakeholder group which is an indication of the different and varied uses geodemographic classifications have. This made it difficult to draw any firm conclusions from the user engagement on what specifically the 2011 Output Area Classification (2011 OAC) should be. It does however indicate a desire for users to have more control on adapting geodemographic classifications for their own purposes.

We would like to thank all respondents for taking time to respond to this user engagement.

1. Background

This document summarises the responses received to the user engagement on the creation of a new OAC using 2011 Census data. The user engagement ran from 17 February 2012 to 30 March 2012 and was designed to help shape the proposed new 2011 OAC.

The original Output Area Classification (2001 OAC) was created for ONS in 2005 by Dr Daniel Vickers at the University of Leeds using 2001 Census data. The undertaking of the 2011 Census provides an opportunity for the 2001 Output Area Classification to be updated using 2011 Census data, and for the methodology used to create the OAC to be reviewed. To help with the construction of this new open-source classification, and to better understand user requirements for it, ONS and UCL conducted a user engagement of users of the original 2001 OAC and anyone with an interest in small area classifications.

To better understand the thoughts, expectations and requirements for this new geodemographic classification, respondents were asked questions covering the following topics:

- The current 2001 Output Area Classification
- New for the 2011 Output Area Classification
- Dissemination of the 2011 Output Area Classification
- Construction of the 2011 Output Area Classification
- Other comments regarding the 2011 Output Area Classification

2. Outcome of the User Engagement

ONS and UCL received 38 responses to the user engagement. Responses came from a mixture of local and central government, primary care trusts, other public sector organisations, consultancies, commercial organisations and from academia. The respondent types have been classified into one of six groups with a breakdown by type shown in Table 1.

Table 1: Responses by stakeholder group

| Respondent Type | Responses | Percentage of Total |
|--|-----------|---------------------|
| Academia | 4 | 11 |
| Central Government | 2 | 5 |
| Commercial Organisations & Individuals | 7 | 18 |
| Health | 3 | 8 |
| Local Authorities | 19 | 50 |
| Other Public Sector | 3 | 8 |
| Total (All) | 38 | 100 |

From the 38 responses, 12 asked for their comments to be confidential. While half of the responses were from local authorities, the various stakeholder groups that responded reflects the interest in the 2001 OAC and the importance of the 2011 OAC as a multi-discipline geodemographic classification.

2.1 The current 2001 Output Area Classification

Q1: Do you know what the current Output Area Classification (2001 OAC) is?

Of the 38 responses received only one respondent did not know what the 2001 OAC was. This gives an indication that the 2001 OAC is a resource known across multiple stakeholder groups.

Q2: Do you (or your organisation) currently use the Output Area Classification?

23 of the respondents (60 per cent) indicated that they, or the organisation they work for, currently use the 2001 OAC. The proportion of organisations using the 2001 OAC varied depended on stakeholder group; over half of the local authorities that responded do not currently use the 2001 OAC, while over half of commercial organisations and individuals do use it.

If you answered “Yes” how long have you (or your organisation) been using the 2001 OAC for?

The majority of those who use the 2001 OAC have been doing so for two years or more (and half for five years or more). This is a pattern seen in all stakeholder groups that currently use the 2001 OAC.

Q3: If you answered “No” to Question 2 have you (or your organisation) previously used the Output Area Classification?

Only the 15 respondents who indicated that they, or their organisations, do not currently use the 2001 OAC were eligible to answer this question.

- If you answered “No” why have you never used the Output Area Classification?
- If you answered “Yes” how long ago did you (or your organisation) stop using the Output Area Classification?
- If you answered “Yes” why did you stop using the Output Area Classification?

This question sought to try and find the reasons why some users were not currently using the 2001 OAC. A few respondents indicated they had never used the 2001 OAC. The majority of respondents no longer using the 2001 OAC indicated they stopped using it two to five years ago. Of the respondents no longer using the 2001 OAC, the main reason for this was a switch to using only commercially available systems. Other reasons included the need for a finer granularity than Output Area (OA) and ‘not used’.

Q4: What alternative commercial geodemographic classifications do you (or your organisation) use?

Nearly three-quarters of respondents indicated that they used one or more commercial geodemographic classifications; the dominant alternative classifications stated were ACORN by CACI and Mosaic by Experian. Several respondents indicated that the reason they used commercial geodemographic classifications was that they give a better discrimination for smaller geographic areas and were more accurate than the 2001 OAC.

Over a quarter of respondents indicated that they do not use any commercially available classification. This suggests a number of respondents who continue to use the 2001 OAC as their only geodemographic classification solution. Some of the reasons given for the continued use of the 2001 OAC were that as it was a free product it offered ‘much better value’, other respondents indicated that they did not have a budget for commercial products.

Q5: Please indicate the geographical coverage(s) you favour when using a geodemographic classification?

There was a wide variation seen in the responses from the different stakeholders, an indication of the different ways they use geodemographic classifications. For local authorities, the preferred geographical coverage is at a local level while central government requires a more national view. The 2001 OAC only offers UK coverage; however there does appear to be a demand for a more flexible geographical approach when constructing the 2011 OAC.

Q6: Would you welcome a new version of the Output Area Classification?

34 respondents (89 per cent) would welcome a new version of the Output Area Classification: the 2011 OAC. The number of respondents who would welcome the 2011 OAC is greater than the number of respondents who currently use the 2001 OAC. This response indicates that the majority of respondents do see creating the 2011 OAC a worthwhile endeavour and of benefit to them.

Q7: Should a new 2011 Output Area Classification (2011 OAC) be a general purpose classification (like the current OAC), or should it focus on producing specialised variants (such as health, education or crime)?

The responses to this question suggest both a desire for the 2011 OAC to be a general purpose classification and to allow for specialised variants. One respondent commented: “the idea of differing versions of the OAC is an interesting one. I think a key requirement of the main OAC and any alternative version is clarity about what is being measured. There is a tendency for general

classifications to try and cover a wide range of variables, meaning that the final classification tries to cover too many bases and loses clarity. Thus a series of specific focussed sub classifications might be a valuable approach”.

Q8: Flexibility in specifying the variables that are to make up the 2011 OAC would open up a range of options for area classification using Open Government Data. Is it important to you that the 2011 OAC be directly comparable – in terms of similar census data being used to construct it - with the 2001 OAC?

The majority of respondents indicated that they do not believe the 2011 OAC needs to be directly comparable with the 2001 OAC.

If you answered ‘No’ then what are the other priorities that are important to you in the construction of the 2011 OAC?

Responses of ‘updateable’ and ‘better variables’ for priorities when constructing the 2011 OAC, suggest respondents consider how the classification is composed to be more important than how it is presented. For other priorities, mention was also made of using a wide range of variables from different sources (Open Government Data).

There were other suggestions from respondents: “better distinctions between the groups and names” and “more documentation that is accessible rather than technical on each cluster” suggest the role in assigning group names and providing additional documentation is also considered important.

Q9: The 2001 OAC divides the population of the UK into 7 Supergroups, 21 Groups and 52 Subgroups. How would you describe this framework when using the 2001 OAC for your particular purposes?

The responses to this question indicate over three-quarters of respondents felt the way the 2001 OAC divided the UK was either ‘satisfactory’, ‘good’ or ‘excellent’. One respondent commented they only used the 7 Supergroups and 21 Groups as they find the 52 Subgroups too detailed for their particular purposes.

Summary of responses for 2.1 - The current 2001 Output Area Classification

It was identified that the 2001 OAC is used across multiple stakeholder groups (Q1), and that among users nearly 50 per cent had been using it for more than five years (Q2). There were also a number of users who had previously used the 2001 OAC but had switched to commercial systems (Q3), of which the most commonly used products were ACORN by CACI and Mosaic by Experian (Q4). The 2001 OAC is used to cover a variety of different geographical areas, including settlements (cities, towns and villages), local authorities, counties, regions, individual country level, and whole UK coverage (Q5).

There is support for the creation of a 2011 OAC (Q6), and in particular for a general purpose classification (as proposed), but also some interest in specialised variants of the classification (Q7), but no requirement from users for the 2011 OAC to be comparable with the 2001 OAC in terms of the census data used to construct it, with support for the 2011 OAC being updateable over time and with a better choice of input variables (Q8).

The subdivision of the 2001 OAC into Supergroups, Groups and Subgroups, with few exceptions was stated to be ‘satisfactory’, ‘good’ or ‘excellent’ by users (Q9).

2.2 New for the 2011 Output Area Classification

Q10: Thinking about how you use and interpret the 2001 OAC, how useful do you think each of the following options would be to you for the 2011 OAC? (1 = Not at all useful to 5 = Extremely useful)

- Maps in PDF (or similar) format that are not interactive
- Online interactive maps with clickable details
- Mapping against different backdrops (such as Google maps or OpenStreetMap)
- Correlation tables (showing to what extent the variables within the classification correlate with each other)
- Bar graphs of the group's attributes
- Radial plots of the group's attributes

The responses indicate that there is a need to understand what the classification means, and not just show what the classification is. This differs from question 8 where the responses suggested a greater interest in how the classification is composed rather than how it is presented. This does not de-value the importance of understanding the 2011 OAC, and there was a particular interest in being able to view tables of how the variables used in the classification correlate with each other; along with being able to create bar graphs to better understand the composition of the groups produced. Both of these outputs were not made available for the 2001 OAC, although radial plots were, but these were not as popular as the bar graphs with the respondents to this user engagement.

There was also a preference for interactive maps over non-interactive maps (eg PDF files), and a preference for mapping against different backdrops (eg Google Maps).

Q11: Thinking about your own understanding of the existing 2001 OAC, how useful do you think each of the following options would be to you for the 2011 OAC? (1 = Not at all useful to 5 = Extremely useful):

- Group Name
- Group definitions (a written summary of the key characteristics of each group)
- Key points of characteristics you would expect to find in each group
- Written 'pen portraits' of typical households found within each group
- Written 'pen portraits' of typical housing and built environments found in each group

Following on the theme of question 10 of understanding the classification, the options given in question 11 on the different methods that could be used to enhance understanding of the 2011 OAC were all popular across the stakeholder groups. In particular written descriptions were popular with all respondents, suggesting a need for more detailed understanding of the classification compared with the quicker interpretation provided by a bar graph or radial plot.

Q12: Do you agree with the view that it would be helpful to adjust the composition of each group for different parts of the UK (so, for example, there might be separate classifications made for London, or Scotland)?

There was no consensus from the respondents regarding if separate classifications should be part of the 2011 OAC. Across the stakeholder groups there were slight variations; more local authorities agreed with this concept, whereas the majority of academics disagreed with it. Only a limited number of respondents explained their decision, but one commented: "the downside is losing

comparability between areas” demonstrating an understanding of the problem of having multiple separate classifications.

Other comments from respondents indicated that a national 2011 OAC along with separate classifications should be constructed: “I would welcome local variants, but these should supplement rather than replace the UK-wide OAC” and another suggestion: “we would prefer to have consistent classifications across GB/UK and finer region specific subcategories, which could be aggregated up to the consistent GB/UK classifications, may be useful”. This again suggests the need for the construction of the 2011 OAC to allow for potential variants created by/for potential users.

Q13: Please identify what, if any, extra features would you like the 2011 OAC to have when compared with the 2001 OAC

Nearly half of all respondents did not answer this question – suggesting that there weren’t any extra features with the 2011 OAC they were seeking. Of those suggesting extra features, their responses indicate, like questions 10 and 11, that a greater understanding of the groups would be welcomed for the 2011 OAC. For example, “I like the idea of Pen Portraits as this enables people to understand the groups better”, “Group and Type names in particular from the outset, also pen portraits and an interactive multimedia guide with visualisations of data variables”, “it would be good to have names for the 52 sub-groups... a name is easier to explain than a number” and “the difficulty with the 2001 OAC was that the characteristics even of the Supergroups weren't that clear, and were worse with the smaller groups. I think the Subgroups are possibly superfluous. Clear names and descriptions are needed for every categorisation”.

Pen Portraits and detailed descriptions of each group’s characteristics in particular appear to be desirable to local authorities, central government and commercial organisations.

Summary of responses for 2.2 - New for the 2011 Output Area Classification

In terms of using and interpreting the 2011 OAC there was a stronger preference for interactive online maps than for non-interactive PDF maps, and broad interest for the availability of mapping against different backdrops (such as Google Maps), and both bar graphs and radial plots to show Supergroup/Group/Subgroup attributes (Q10). There was also support for all the stated options to aid understanding of the 2011 OAC, and in particular for pen portraits to describe the different groups (Q11).

The question of separate classifications by area (eg country or regional classifications) elicited views across the spectrum from ‘strongly disagree’ to ‘strongly agree’ and so there was no consensus on this issue (Q12). For extra features which could be incorporated with the 2011 OAC, pen portraits were the most commonly stated (Q13).

2.3 Dissemination of the 2011 Output Area Classification

Q14: Which methods of dissemination for the 2011 OAC would you be most likely to use?

There was a wide variation in the responses given by the stakeholders. This again suggests that respondents all use geodemographic classifications differently. As such they require different outputs from the 2011 OAC in order to make use of it.

Q15: Other data sources could be used to give greater context to the 2011 OAC. Rather than contributing to the classification itself, these could be used to help visualise the 2011 OAC in different ways. What (if any) data sources would you like to be able to use alongside the final 2011 OAC output?

The Index of Multiple Deprivation – a measure of deprivation that is created periodically for each nation of the UK separately – is the most desired additional data source to aid the visualising of the 2011 OAC. Additionally stated was the use of other survey data.

Summary of responses for 2.3 Dissemination of the 2011 Output Area Classification

Across users and stakeholder groups, all the suggested methods of dissemination for the 2011 OAC, if available, were stated to be likely to be used, with Excel/CSV files the most commonly stated method likely to be used (Q14).

There was a strong demand for the Indices of Multiple Deprivation (these are produced in a similar way for each country within the UK, but are not directly comparable) to be used to provide context to the 2011 OAC, and also some demand for survey data to be also used (Q15).

2.4 Construction of the 2011 Output Area Classification

Q16: There are multiple levels of spatial resolution that data can be produced. In addition to Output Areas are there any other spatial resolutions you believe would benefit from having their own classification?

Aside from OAs, the most commonly stated requirement for alternative geographies were for Lower Layer Super Output Area (for England and Wales), Data Zones (for Scotland) and Super Output Areas (for Northern Ireland); which across the UK comprise the next level of spatial resolution for statistical geographies above Output Areas.

Other frequently stated requirements for area classification for other geographies were (in numerical order) wards, local authorities and Middle Layer Super Output Areas (or country equivalent).

Q17: The 2001 OAC uses only 2001 Census data in its construction. It has been suggested that, in addition to using 2011 Census data, it might be possible for the 2011 OAC to be enhanced with supplementary non-census open data sources, and updated periodically over time. Would you find this beneficial?

The majority of respondents indicated they would find it beneficial for the 2011 OAC to be updated using non-census open data sources. Respondents in favour of this approach typically mentioned how this would help to keep the 2011 OAC relevant and bring it more into line with commercial products. Conversely other respondents were more cautious or disagreed with this approach,

indicating a continued role for a census only classification and highlighting the difficulty of alternative data sources at OA which were consistent and readily available across the UK.

Some respondents indicated what they would like without knowing what is possible, while other respondents have a better understanding of the limitations of geodemographics and data and had different opinions as a result.

Q18: It is unlikely that many open data sources will offer UK wide coverage. What extent of coverage do you believe is a minimum requirement for an acceptable general purpose OAC classification?

The responses given to this question reflect the different needs of the respondents. Depending on the use made of geodemographic classifications, then this will have a bearing or influence on the coverage they believe is a minimum requirement for a general purpose classification.

Q19: If the 2011 OAC could be updated with new data, how frequently should this be done?

The responses varied, perhaps an indication that no one really knows if there is a “correct” answer to this question. Interestingly 42 per cent of all respondents indicated once a year as their preferred choice. This is perhaps more likely to be a desire on the part of the respondents, rather than any particular need they may have identified. This does however again show that regular updating of the 2011 OAC in some form would be welcomed by the majority of respondents.

Q20: Change in the social, economic and demographic structure of areas in the UK occurs at different rates. Instead of updating the 2011 OAC it might be possible to use non-census sources to flag areas where population changes have occurred, enabling the user to recognise parts of the UK where the classification had probably become unreliable. Would you find this helpful?

With one exception (a respondent who did not answer), all respondents indicated they would welcome some form of uncertainty measure to be included as part of the 2011 OAC. One respondent commented that if the proposal to flag where the segmentation has become unreliable was undertaken, then the commercial geodemographic classification producers would exploit it.

Summary of responses for 2.4 Construction of the 2011 Output Area Classification

In addition to the requirement for an updated classification being available for OAs (ie the 2011 OAC), for other geographies the requirement for additional classifications was strongest for (in order) Lower Layer Super Output Areas (and country equivalents), wards and local authorities (Q16). These are all geographies for which 2001 area classifications were produced, thus indicating a requirement for these classifications to be updated.

There was very strong support to the suggestion of using non-census data to update the 2011 OAC over time (Q17), with no consensus over what a minimum geography requirement should be for such data (Q18), or how frequently the 2011 OAC should be updated, though the majority of respondents stated that this should be done every two years or longer (Q19).

Users welcomed the suggestion of using ‘flags’ to identify areas where population change had occurred which may help to identify areas where the 2011 OAC may have become unreliable over time, though the possible use of non-census data over time to update the 2011 OAC may help to lesson such concerns (Q20).

2.5 Other Comments

The respondents, after completing the set questions, were given an opportunity to offer additional comments regarding the 2011 OAC. A selection of these comments has been provided below that seem the most relevant to the development of a 2011 OAC.

General Comments

- I think the [2001] OAC is a brilliant resource
- While I support the improvement of any Government data, I do think a careful assessment of the economic damage that could be caused to commercial products should be done. While the availability of more data is a good thing, this should be done in conjunction with the private sector; not in competition with it
- An incredibly valuable resource that in my view could be made more so. Commercial systems are very costly and an open source classification that helps organisations understand more about the communities they serve is invaluable
- I am wondering if it might be easier to use Lower Super Output Areas for the base unit for the new classification instead of Output Areas. I am thinking that there may be more other Open Data sources available at this level than at the Output Area level
- A classification which could encompass population change 1991-2011 as well as 2011 characteristics and which could be applied to all three censuses would be very useful
- [The 2001] OAC is a great classification, and I really appreciate its transparency, basis in open source data, and commitment to groundtruthing and academic use and review. In many ways, I feel this makes it superior to all the commercially available classifications around, and I'd be sad to see it move away from this model (although I do understand that getting it more widely used is probably a priority)

Comments on the 2011 Output Area Classification

- We consider that a general-purpose classification is an essential output. However, specialised variant classifications covering health, education and crime are becoming more relevant
- [The] 2011 OAC should from the outset offer a credible alternative to commercial classifications with the opportunities for significant cost savings across the public sector organisations
- We would prefer the 2011 OAC to be produced more timely than the 2001 OAC
- Name the clusters: this might be done informally on a mirror site, such as the OAC User Group, rather than putting ONS in a difficult situation
- ONS should plan to rapidly add the 2011 OAC to its sample surveys such as the Living Costs, Food Survey and the Wealth Assets Survey. This will create much additional value
- The unique selling point for the OAC is an open and reproducible methodology - any deviation from this will be detrimental to the overarching aims of the classification

3. Next Steps

The user engagement exercise confirmed that there is a user requirement for the 2001 OAC to be recreated using 2011 Census data. Based on the results of the user engagement exercise, and suggestions put forward by the respondents, ONS and the team at UCL charged with creating the 2011 OAC, are suggesting the following “guiding principles” on how the 2011 OAC methodology and the classification itself should be constructed:

- to focus on producing a generalised 2011 OAC with UK coverage, but recognising some need for specialised variants (eg health and crime) which have the potential to be developed at a later stage (but not necessarily produced by ONS/UCL)
- to identify and use the best possible census variables for producing the 2011 OAC without the constraint of needing to ensure consistency with 2001 Census variables used with the 2001 OAC
- to develop the 2011 OAC with the intention that it should be updated over time with non-census data
- to keep as far as possible the existing hierarchical nature of the classification with Supergroups, Groups and Subgroups – but not being constrained with the exact same number of categories within each hierarchical level as with the 2001 OAC, but at the same time recognising the existing number of categories with the 2001 OAC as a suitable ‘target’ to aim for with the 2011 OAC
- to consider more user friendly ways and methods by which the 2011 OAC can be disseminated, recognising developments with web publishing since the 2001 OAC was published (eg online Google Maps); and to use better techniques to describe the categories (eg pen portraits)
- to consider using other data (eg Indices of Multiple Deprivation) to help give greater context to the 2011 OAC

As at May 2012, 2011 Census data at Output Area level are due to be released (as Key and Quick Statistics) over the period November 2012 to February 2013. As soon as these data become available it is intended that work will then commence on analysing the available data to identify which census variables are the most appropriate to be used within the methodology to produce the 2011 OAC. The intention is that the 2011 OAC will be published during the course of 2013. Publication plans for the release of the 2011 OAC will be announced on the ONS [National Statistics 2011 Area Classifications](#) webpage.

For any enquiries about the Output Area Classification, please email better.info@ons.gov.uk

Appendix – List of responding organisations

Arun District Council
Bedford Borough Council
Big Lottery Fund
Birmingham City Council (3 responses)
Brighton and Hove City Teaching Primary Care Trust
Buckinghamshire County Council
Capita Group
Cornwall Council
Demographic Decisions Ltd
Department for Transport
East Sussex County Council
Eastbourne Borough Council
Experian QAS
Falkirk Council
Hampshire Customer Insight Partnership
Helen Corkery, Freelance Consultant
Home Office
Leicester City Council
London Borough of Sutton
Newark and Sherwood District Council
North Devon District Council
North Yorkshire County Council
Shropshire Primary Care Trust
South Wales Police
Suffolk Coastal District Council & Waveney District Council (joint response)
Suffolk County Council
Surrey Primary Care Trust
Tees Valley Unlimited
The Church of England Diocese of Manchester
University of Cambridge
University of Liverpool
University of Newcastle
University of Warwick
Wakefield and District Housing
Worcestershire County Council
Wright on Research