

Analysis of responses to the 2013 Consultation regarding the redraw of Data Zones

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Introduction

Data Zones are the main geography for small area statistics in Scotland, and are widely used across the public and private sector. They are large enough that statistics can be presented accurately without fear of disclosure and small enough that they can be used to represent communities. Aggregations of Data Zones are often used to approximate a larger area of interest or a higher level geography that statistics wouldn't normally be produced separately, such as Multi Member Ward. They have roughly standard populations to allow comparison between Data Zones and static boundaries to allow tracking of change over time; this is the first time that Data Zone boundaries have been revised since they were created in 2004

Since their inception in 2004, there has been population redistribution and the link between Data Zones and other geographies has become eroded. This reduces the utility of Data Zones and invalidates some of the criteria used during their initial development, hence the need to redraw Data Zones.

About the consultation

The consultation was launched on 23 October 2013 and closed 12 February 2014. Respondents could complete the response form online or submit a paper version. The consultation sought views on provisional 2011 Data Zones, 2011 Intermediate Zone boundaries and the calculation of Data Zone centroids.

The consultation paper (<http://www.scotland.gov.uk/Publications/2013/10/2961>) set out the background to Data Zones and why the Data Zone geography needs to be redrawn. The paper also included information about how the Scottish Government produced the draft 2011 Data Zones, and details of how to access proposals the Scottish Government made for the redraw of Data Zones.

The consultation paper asked for comments on three questions:

1. Are you content with the proposed 2011 Data Zones?
2. Do you agree that 2011 Data Zones should use the median methodology for the calculation of centroids?
3. Are you content with the proposed best-fit 2011 Intermediate Zone?

About this report

This report provides an analysis of responses to the 2013 Consultation regarding the redraw of Data Zones. It provides an analysis of the views received, and highlights trends and issues where appropriate. Detailed analysis of the responses to the consultation paper was conducted by Scottish Government during the first half of 2014.

Many responses suggested changes to provisional boundaries based on local knowledge. This resulted in the analysis being focused on the detailed responses provided. Analysis of responses took the form of reviewing each response in detail and making provisional changes to the draft 2011 Data Zones / 2011 Intermediate Zones if appropriate. The report is based on all responses received.

Next steps

The 2011 Data Zones boundary files will be published on the same day as this report.

Data Zone level statistics will not as a matter of course be produced for both 2001 Data Zones and 2011 Data Zones. Previous statistics based on 2001 Data Zones will not be recalculated for 2011 Data Zones, unless specific need is identified.

Summary of findings

The majority of responses suggested some changes to provisional 2011 Data Zone and 2011 Intermediate Zone boundaries based on their local knowledge. Based on the provisional boundaries, we made changes to around 12% of Data Zones across Scotland; this figure varied from no changes in nine Local Authorities such as Dundee City and Clackmannanshire, to changes to 95% of Data Zones in Stirling. All changes were done through consultation with individual Local Authorities to ensure the boundaries reflected knowledge of communities and small areas. Further information about the changes at Local Authority level are provided in Annex 1 of this report.

In total 43 responses were received. Over 50 % of responses received were from Local Authorities. The rest were from public bodies, third sector and private companies.

Table 1.1 Summary of responses to individual questions

	Are you content with the proposed 2011 Data Zones?	Do you agree that 2011 Data Zones should use the median methodology for the calculation of centroids?	Are you content with the proposed best 2011 Intermediate Zones?
Yes	17	33	24
No	20	2	12
No Response	6	8	7
Total	43	43	43

Consultation question 1. Are you content with the proposed 2011 Data Zones?

Since their inception, Data Zones have become the main small area geography used for presenting statistics. They are the core geography behind the Scottish Neighbourhood Statistics website (www.sns.gov.uk) and the Scottish Index of Multiple Deprivation in addition to being the main small area geography for a wide range of statistical outputs.

2011 Data Zones were built up from 2011 Census Output Areas (COAs) and met tight constraints on population thresholds (generally 500 – 1,000 household residents).

Many respondents were not content with the proposed 2011 Data Zones; however respondents were generally happy with the reasoning behind why 2001 Data Zones were being reviewed. The majority of suggested changes requested were based on local knowledge and were generally accepted.

Respondents suggested specific changes to local 2011 Data Zones for the following reasons:

- Alignment to Multi Member Wards, settlement boundaries, neighbourhood / community council boundaries, civil parishes, natural communities, natural neighbours, communities of interest and other administrative boundaries.
- After consulting with Community Planning Partnerships to gain understanding of local areas.
- Planned demolitions of housing meant that the population of a proposed 2011 Data Zone would be below the population threshold in the future.
- Planned main roads dissecting Data Zones and splitting communities.
- New housing developments being built meant that the population of proposed 2011 Data Zones would be above the population threshold in the future.
- Knowledge of island communities and links to mainland / other islands.

Consultation question 2. Do you agree that 2011 Data Zones should use the median methodology for the calculation of centroids?

The Data Zone centroid represents the centre of the area. This is not the geometric middle of the Data Zone, but a point that represents the population centre. The main use of the centroid is to determine which higher level geography the Data Zone would be allocated to.

For 2001 Data Zones, centroids were calculated as the population weighted centre (essentially the mean centre) of all 2001 Census Output Areas contained within the Data Zone. The methodology used can be found here: <http://www.scotland.gov.uk/Resource/Doc/933/0082884.doc>

The median is a measure of central tendency and, broadly speaking, the median can be thought of as the 'middle' value. The median is calculated by putting the observations in order, from lowest to highest, and then taking the value in the middle, (or calculating the mean of the two middle values if there are an even

number of observations). This is different from calculating the mean, which is done by summing all the values together and dividing by the number of observations.

The majority of respondents agreed that median centroids should be used rather than mean centroids.

Comments received for this question include:

- Median is less likely to be influenced by values far away from what would be considered to be the population centre of the Data Zone
- Median provides a better means of determining how urban or rural a particular area is
- Impact of change small overall
- In principle methodology change makes sense
- Median rather than mean ensures that measures are less skewed by outliers in data arising as result of relatively small numbers of individuals
- Makes comparison between 2001 Data Zones and 2011 Data Zones harder

Therefore this methodological change has been accepted.

Consultations question 3. Are you content with the proposed best 2011 Intermediate Zones?

Intermediate Zones (sometimes called Intermediate Geographies) are similar to Data Zones and share many of the same traits and problems. The key difference is their size: Intermediate Zones have a population of around 4,000 and are built up from Data Zones.

The majority of respondents were content with the updated boundaries and recognised that 2011 Intermediate Zones were created and any changes to 2011 Data Zone boundaries will be reflected in 2011 Intermediate Zones. A few responses detailed changes to one / many 2011 Intermediate Zones which are reflective of their suggested changes to 2011 Data Zones above.

Respondents suggested specific changes to 2011 Intermediate Zones for the following reasons:

- Substantial growth in population
- Better reflection of communities
- Alignment with operational areas e.g.: NHS and Social Work
- Better reflection of local ideas of neighbourhood
- Better reflection of natural community boundaries

2011 Intermediate Zones boundary files will be published alongside 2011 Data Zones.

Other findings

More than one respondent raised the following general comments:

Respondents asked for clarification of how 2011 Data Zones will affect SIMD 2012: 2011 Data Zones will not affect SIMD 2012 due to the fact that SIMD 2012 uses 2001 Data Zones as a base data set and statistics will not be recalculated for 2011 Data Zones.

Some responses referred to the discontinuity of spelling and naming of Data Zones. All future references to Data Zones will be either 2001 Data Zones or 2011 Data Zones.

2011 Data Zones were built up from 2011 Census Output Areas (COAs) and met tight constraints on population thresholds. The aim was to build 2011 Data Zones by grouping together COAs with similar social characteristics, for Data Zones to have a fairly compact shape, and to take account of physical boundaries, such as railway lines.

A number of respondents suggested some reallocations of 2011 Census Output Areas (COAs) for specific 2011 Data Zones, while a few others also raised issues relating to COAs boundaries. On the latter point, while the set of 2011 Census COAs cannot be changed, NRS will review the boundaries of the underlying postcodes to see if they can be improved.

Users were consulted about the general approach to the COA geography for the 2011 Census through a number of formal consultation rounds – further details on these can be found on the NRS website: <http://www.gro-scotland.gov.uk/census/censushm2011/consultation-and-research/formal-consultations-supplementary-work/index.html> .

In addition, a Census Outputs Geography Working Group was established to provide NRS with expert advice on geographical issues relating to 2011 Census Output Areas: <http://www.gro-scotland.gov.uk/statistics/user-consultation-groups-seminars/census-outputs-geography-working-group.html>.

Annex 1 – Table of Local Authority Changes, 2001 to 2011 Data Zones

Local Authority	Finalised Data Zones (2011)	Number changed (from 2001)	Change in Local Authority (%)	Total Change Scotland (%)	Number Revised after Consultation	Revised Local Authority (%)	Revised for Scotland (%)
Aberdeen City	283	114	40.3%	3.3%	3	1.1%	0.4%
Aberdeenshire	340	218	64.1%	6.3%	35	10.3%	4.1%
Angus	155	76	49.0%	2.2%	24	15.5%	2.8%
Argyll and Bute	125	60	48.0%	1.7%	6	4.8%	0.7%
City of Edinburgh	597	264	44.2%	7.6%	78	13.1%	9.2%
Clackmannanshire	72	43	59.7%	1.2%	0	0.0%	0.0%
Dumfries and Galloway	201	137	68.2%	3.9%	65	32.3%	7.6%
Dundee City	188	66	35.1%	1.9%	0	0.0%	0.0%
East Ayrshire	163	92	56.4%	2.6%	31	19.0%	3.6%
East Dunbartonshire	130	49	37.7%	1.4%	0	0.0%	0.0%
East Lothian	132	58	43.9%	1.7%	0	0.0%	0.0%
East Renfrewshire	122	55	45.1%	1.6%	11	9.0%	1.3%
Eilean Siar	36	5	13.9%	0.1%	0	0.0%	0.0%
Falkirk	214	115	53.7%	3.3%	28	13.1%	3.3%
Fife	494	251	50.8%	7.2%	88	17.8%	10.3%
Glasgow City	746	304	40.8%	8.7%	12	1.6%	1.4%
Highland	312	129	41.3%	3.7%	9	2.9%	1.1%
Inverclyde	114	65	57.0%	1.9%	7	6.1%	0.8%
Midlothian	115	59	51.3%	1.7%	0	0.0%	0.0%
Moray	126	72	57.1%	2.1%	0	0.0%	0.0%
North Ayrshire	186	78	41.9%	2.2%	27	14.5%	3.2%
North Lanarkshire	447	232	51.9%	6.7%	75	16.8%	8.8%
Orkney Islands	29	11	37.9%	0.3%	3	10.3%	0.4%
Perth and Kinross	186	107	57.5%	3.1%	4	2.2%	0.5%
Renfrewshire	225	113	50.2%	3.2%	12	5.3%	1.4%
Scottish Borders	143	119	83.2%	3.4%	78	54.5%	9.2%
Shetland Islands	30	8	26.7%	0.2%	0	0.0%	0.0%
South Ayrshire	153	52	34.0%	1.5%	11	7.2%	1.3%
South Lanarkshire	431	173	40.1%	5.0%	18	4.2%	2.1%
Stirling	121	118	97.5%	3.4%	115	95.0%	13.5%
West Dunbartonshire	121	52	43.0%	1.5%	0	0.0%	0.0%
West Lothian	239	182	76.2%	5.2%	111	46.4%	13.0%
Scotland	6976	3477	49.8%	100.0%	851	12.2%	100.0%

Annex 2 – Detailed responses

Detailed responses to each question are below, except that any maps, additional documents or tables have been removed. Full responses to the consultation can be viewed here: <http://www.scotland.gov.uk/Publications/2014/03/8116/downloads>

Consultation question 1. Are you content with the proposed 2011 Data Zones?

David Connolly

Yes

Rae Taylor, NHS Tayside

Yes

Francesca Lynch, Community Links (South Lanarkshire)

Yes; Not qualified to suggest changes to individual datazones although in theory, reasons for changes are in our opinion justified. However working within datazones at a local level – specifically in the top 15% of SIMD – means that our future operations will be directly affected by these changes especially if comparative statistical information is not presented for 2011 datazones. Whether this will result in a huge negative impact remains to be seen and also greatly depends on how our local authority plans to consider such changes.

Tom Snowling, Aberdeen City Council

Yes; DZ330234 and S01000220 – the current datazone has a 2011 Census Day population of 2648. Most of that is in a single census output area (S00090701), which includes a large student hall of residence. We recommend that the western part of the proposed datazone should be rezoned, with COAs S00089591, S00089610 and S00089622 being allocated to one of the adjacent datazones, either DZ330321 or DZ330225. From a 'community perspective' this is a better match as the three COAs share many characteristics with DZ330321 and DZ330225 and few with DZ330234.

DZ330222/DZ330223 and S01000209 – the current datazone has a 2011 Census Day population of 1391 and we would normally agree with a proposal to split it. But the area will be affected by a planned realignment of the trunk roads (A96 and A90) which form the existing datazone's northern and eastern boundaries. That will lead to demolitions in the northern part of the datazone to create a relief road which bypasses the roundabout at the junction of the two trunk roads. This could make DZ330223 non-viable as a datazone. There is no precise timetable for this work to be completed, but it may be wise to retain a single datazone for the area.

Erin Murray, Scottish Borders Council

No; Reviewed all the COA allocations to Datazones 2011 and made changes to Datazones based on:

- Multi Member Ward Boundaries
- Settlement Boundaries
- Neighbourhood / Community Council Boundaries
- Initial 2011 based datazones

These criteria were agreed in discussion with Community Planning Partnership colleagues.

All the SB developed Datazones meet with the 500 to 1000 people criteria except:

- 2 datazones below 500 (DZ260088 and DZ260058) both proposed by Scottish Government. (Compared to 5 from the SG)
- 9 datazones with more than 1000 compared to the 12 proposed by the SG.

Attached are an excel file and a shape file with all the Census Output Areas allocated to:

- initial 2011 based datazones
- Scottish Borders proposed 2011 based datazones (based on the above criteria) – with names
- Scottish Borders proposed 2011 Intermediate Geographies based on the SB 2011 Datazones – with names
- Best fit Multi-Member Ward (based on the Scottish Borders 2011 based Datazones)

Fred Nimmo

No, I accept that demolition and construction of buildings will lead to the removal or creation of datazones, but this should be done on a minimalist basis, i.e. existing datazones should continue unchanged until population change forces some adjustment, when it would either be merged with a neighbouring datazone or split up if too large. If the original datazones had any validity as homogeneous entities then they should surely be preserved as such. I can see that the re-definition of output areas for the 2011 Census has created problems for you, but they could have been defined in a way that fitted in the existing datazone boundaries. Civil parishes have been defined in a way that preserves their geographical continuity across censuses, and I think that the same attitude should apply to datazones.

Kathleen Shirkie, Comhairle nan Eilean Siar

Yes; No further comments.

Jan Lyell, NHS National Services Scotland

Yes; N/A

Emma Fitzpatrick, East Dunbartonshire Council

Yes

Coryn Barclay / Clare Campbell, Fife Council / NHS Fife

No; The proposals for splitting datazones are broadly in line with the recommendations made in the 2010 response from Fife.

Fife is in agreement with the Scottish Government on 405 of the proposed datazones, but has identified changes required to 88 datazones, and one query, bringing the total number of datazones for Fife to 494.

The datazone changes which Fife is putting forward reflect:

- a) a different configuration of Census Output Areas to form the new datazones.
- b) a number of further splits to take account of planned/committed house building
- c) a minor change to the external boundary of selected datazones to form more meaningful local neighbourhoods and/or more meaningful interzones.

The spreadsheet with details of Fife changes (both Datazone and Census Output Area level) and annotated maps explaining the rationale for the changes can be downloaded from KnowFife Dataset Resources, KnowFife User Guides and Resources, Datazone Redraw:

<http://knowfife.fife.gov.uk/IAS/explorer/resources/>

The spreadsheet considers each of the proposed Fife datazones in turn. This includes the interzone to which each datazone should be allocated.

Where there has been little or no change to the 2011 datazone boundary, the 2011 datazones have inherited the 2001 datazone names. In a small number of cases, names have been changed to better reflect the local area. Where datazones are proposed for split, names have been given to each of the new Fife datazones.

Each datazone is marked as Agree, Change or Query. Where a change is required, details of the change (including/excluding Census Output Areas) are given in the comments field. This includes instances where the boundaries of the COAs are problematic for us.

Scottish Ambulance Service

Yes; The only area of concern for us would be in respect of changes to the SIMD. If I am reading the document correctly this would discontinue, although that is not entirely clear. Whilst this reference data set is not routinely used, it is useful in understanding patient flows and will be used by NHS Boards. However, it is not clear from the document if there will be a discontinuity of the current structure of the SIMD for historical comparison or a discontinuity of SIMD as a whole.

Paul Landman, East Renfrewshire Council

No; We would like to request changes to seven Datazones in the Barrhead, Neilston and Uplawmoor areas:

DZ110016, DZ110014, DZ110044, DZ110071, DZ110056, DZ110057 and DZ110064.

We wish to maintain separation, where possible, between the discrete settlements of Barrhead, Neilston and Uplawmoor. At the moment DTZ110014 includes parts of both Neilston and Uplawmoor within its extents. Similarly DZ110064 and DZ110071 contain sections of both Neilston and Barrhead.

Neilston currently contains one existing Datazone within the worst 10% neighbourhoods in Scotland (2012 SIMD) In the proposed scheme this area was grouped together with affluent neighbouring census output areas, which would have masked the deprivation in this area. We have therefore suggested a reworking of several of the Neilston Datazones, which would retain the homogeneity, and the socio-economic characteristics of this zone, whilst also maintaining numerical parity across the Neilston Datazones proposed here.

DTZ110016 Uplawmoor Existing population 643
Census OA S00102577 (pop 102) should be added to this
DTZ110016 Proposed population $643+102=745$

DZ110044, DZ110014
DTZ110014 Existing population 601
Census OA S00102577 (pop 102) should be removed from this
DTZ110014 Proposed population $601-102=499$
This amended DZ11014 should be merged with DZ110044 to create a single Datazone with new population 957.

Neilston requires changing two Proposed Datazones DZ110056, (Pop 1113) and DZ110057 (Pop 845) into three equal Datazones.

DZ110056 existing Pop 1113
Census OA S00102717 (83) should be removed
Census OA S00102719 (146) should be removed
Census OA S00102720 (71) should be removed
DZ110056 Proposed population = $1113 - (83 + 146 + 71) = 813$

The following OAs should be brought together to form a New Datazone

S00102717 Pop 83 (Formerly DZ110056)
S00102720 Pop 71 (Formerly DZ110056)
S00102726 Pop 85 (Formerly DZ110057)
S00102719 Pop 146 (Formerly DZ110056)
S00102727 Pop 91 (Formerly DZ110057)
S00102750 Pop 66 (Formerly DZ110057)
S00102737 Pop 63 (Formerly DZ110057)
S00102724 Pop 82 (Formerly DZ110057)
New Datazone Total = 687

The following OAs should be brought together to form a Datazone DZ110057
S00102725 Pop 83 (Formerly DZ110057)
S00102718 Pop 250 (Formerly DZ110057)
S00102751 Pop 245 (Formerly DZ110064)
S00102736 Pop 86 (Formerly DZ110064)
S00102723 Pop 125 (Formerly DZ110057)
New Datazone Total Population = 789

Barrhead to Neilston Overlap:-

DZ110071 Existing Population 936

Census OA S00102740 pop (191) should be removed from this as it is in Barrhead
DZ110071 Proposed Population 936 – 191 = 745

DZ110064 Existing Population 1113

Census OA S00102740 pop (191) should be added to this as it is in Barrhead.

Census OA S00102751 (pop 245) should be removed from this as it is in Neilston

Census OA S00102736 (pop 86) should be removed from this as it is in Neilston
DZ110064 Proposed Population (1113+191-245-86)=973

Accompanying documents show the Census Output Areas for each suggested Datazone, (ERC_Datazone Consultation Supporting Data.xlsx) a shape file with the Datazone Boundaries (ERC_Datazone_Changes.shp), and a .PDF showing the extents of the proposed Datazones with Census OA Boundaries (Proposed New Datazones, East Renfrewshire.pdf)

Jan Freeke, Glasgow City Council

Yes; We have noted that, in this proposal, the number of data zones in Glasgow increases from 694 to 746 and we welcome this. The data zones are not always ideal, but they have to be defined within the restrictions of the 2011 Census output area geography.

The redefinition of data zones does, however, have implications for historical data (e.g. SIMD). We would appreciate a response from the Scottish Government to see if they intend to revise historical data to the new data zone boundaries.

Lewis Ramsay, Scottish Fire and Rescue Service

Yes; Whilst the Service accepts that change is required, the acknowledged impact of the change on the SIMD dataset is unfortunate, though unavoidable. The discontinuity of the SIMD classification boundaries between the old and the new will make historical comparisons more difficult.

In addition, the changes to the coding of datazones will mean that for the time being we may need to allocate and maintain two coding systems, one returning the 'old' datazone code for a given easting and northing for historical reasons, and one returning the 'new' coding for all future analysis purposes. The provision of an 'old' to 'new' datazone coding list will be a help, but it does not of itself avoid the need to use two coding systems and two sets of SIMD data.

Alison Craig, South Ayrshire Council

No; South Ayrshire Council is in agreement with the Scottish Government on 142 of the proposed 2011 Data Zones, but has identified changes required on 10 Data Zones.

Census Output Area allocations to Draft 2011 Data Zones have been reviewed and the changes identified by South Ayrshire Council involve:

- One Data Zone being split into two and also modified to take account of Data Zone exceeding threshold and to form more meaningful local neighbourhood and Intermediate Zone.
- A number of minor changes to the external boundary of 9 Data Zones to form more meaningful local neighbourhoods and/or more meaningful Intermediate Zones.

The changes proposed by South Ayrshire Council would result in a total of 153 Data Zones (2011) for South Ayrshire.

The Data Zones developed by South Ayrshire Council meet the 500 to 1,000 resident household population threshold except:

- 8 Data Zones below 500 (DZ280006, DZ280048, DZ280075, DZ280079, DZ280087, DZ280103, DZ280148, DZ280150) which have been proposed by Scottish Government.
- 6 Data Zones above 1,000 (DZ280074, DZ280080, DZ280081, DZ280111, DZ280124, DZ280132) which have been proposed by Scottish Government.

Attached is a spreadsheet containing two worksheets. One worksheet includes the 2011 Data Zones proposed by Scottish Government. Each Data Zone is marked as 'Agree' or 'Change', and where a change is required, details of the change are provided in the 'comments' field (DZ2011 Proposed SG). A reference to the appropriate maps showing the changes is also provided in the 'Map Reference' field. The second worksheet includes the 2011 Data Zones proposed by South Ayrshire Council (DZ2011 Proposed SAC) which lists the Census Output Areas allocated to:

- South Ayrshire Council Proposed Draft 2011 Data Zones
- South Ayrshire Council Proposed Draft 2011 Intermediate Zones

Andrew Cotton, West Lothian Council

Yes

Paul Davidson, Stirling Council

No; The previous 2001 datazones, whilst useful to some degree, were flawed in terms of their ability to describe specific and recognised communities. Being generated automatically with little human intervention this is to be expected. My predecessors at Stirling Council did not make appropriate inputs to ensure their design met the needs of users. For the redraft of datazones, Stirling Council is determined to ensure that new zones meet the needs of the Council and the

Community Planning Partnership in monitoring outcomes and understanding inequalities across the area, which will be key to evaluating success of Stirling's Single Outcome Agreement. In particular, it is vital that our most deprived communities are carefully defined in order that progress on outcomes can be monitored over the 10 year life of our SOA.

As the 2001 zones were not fit for purpose, small changes made (by automatic or human-assisted means) will not be sufficient to rectify the shortcomings in ability to describe communities.

Therefore, we have designed a set of 121 datazones and 24 Intermediate zones from scratch, using locally recognised and understood communities as the basis for these, and relying heavily on detailed local knowledge. The existing zones were not used as a starting point for the reasons noted above. The following principles and approaches have been used:

- All datazones fit well within our community council areas, which are long-established means of describing distinct communities. Where large discrepancies occur, our residential Corporate Address Gazetteer has been used to allocate OAs in the most appropriate way.
- Within these recognised community areas, zones have been created to encompass sub-communities of similar characteristics where possible. Local knowledge, our Corporate Address Gazetteer, housing stock information and ACORN segmentation has been used to inform this process.
- Information on the location of likely housing development (as set out in Stirling's local development plan) has been used to provide intelligence on where some 'leeway' can be designed into zones to give scope for future population growth.

Details of the zones:

- 104 of the 121 zones fall within the 500-1000 preferred range.
- None fall below the absolute minimum population
- 2 zones exceed the maximum but these contain Stirling University or a separate major hall of residence and cannot be considered normal zones with respect to typical resident population.
- Zones fit well within other key local geographies such as multi-member wards.
- Datazone names have not yet been suggested – only draft codes
- New intermediate zones have been defined from the new proposed datazones which better fit recognised communities. In order to maintain minimum sizes, communities have been combined in the most appropriate way, both geographically and culturally. We do not agree with argument of continuity of existing intermediate zones, as these are less important statistical areas, relevant for health statistics that are released infrequently. Of prime importance is defining datazones to better describe existing and recognised communities.
- All intermediate zones meet the required range of population with the exception of Causewayhead (2344) and Braehead (2458). However, both these areas are seeing active new housing development which will see the minimum figure exceeded (if they have not already considering OA figures date from 2011).

A lookup table of output areas to proposed datazones and intermediate zones accompanies this response. Also included is reference to Stirling's Community Council area.

If further discussion / elaboration on the proposed zones is required, we would happily take part in a meeting etc. Alternatively we are happy to assist with clarification of any points.

Margaret Watts, NHS Ayrshire and Arran

No; In consultation with our local authority colleagues in East, North and South Ayrshire, we agree that there are changes required to a limited and small number of data zones so that these are more meaningful for natural communities.

Anna Whelan, Orkney Islands Council

No; One of the main requirements for the Council is to be able to differentiate between residents of the Orkney Mainland and the smaller isles. At present the small islands of Graemsay and Gairsay are included within two Mainland data zones, but they would be better attached to isles data zones. We also have difficulty with the current treatment of the island of South Ronaldsay, which is split between 2 data zones. We would therefore like to propose changes to the following zones:

S01004948 (now DZ230003)
Stromness (North) and Graemsay
IG zone: Orkney Islands - Stromness, Sandwick and Stenness
2011 population: 557
REMOVE: Graemsay (pop. 28)

S01004971 (now DZ230027)
Hoy, Walls, Flotta & South Ronaldsay (south of St Margaret's Hope)
IG zone: Orkney Islands - Isles
2011 population: 993
ADD: Graemsay (pop. 28)
REMOVE: South Ronaldsay (south) (pop. 494)
Remaining pop. in zone: 527
Locally, the south linked isles (Burray, Lamb Holm and South Ronaldsay) are perceived as geographically distinct from the south isles (Hoy, Walls and Flotta).

S01004972 (now DZ230028)
Burray and South Ronaldsay (north)
IG zone: Orkney Islands - Isles
2011 population: 824
ADD: South Ronaldsay (south) (pop. 494)
New population of zone: 1,318
This is above the permitted maximum of 1,125 so we would propose splitting this zone into two distinct island zones.
Population of Burray: 409
Population of South Ronaldsay: 909

Both of these are within the permitted population range of 375 - 1,125. Burray's population has gone up from 357 in 2001, when it was not large enough to be a separate data zone. Since that date a new school has been built in Burray Village, which will help to maintain the population in future.

S01004967 (now DZ230023)

Evie, Rendall and Gairsay

IG zone: Orkney Islands - West Mainland

2011 population: 767

REMOVE: Gairsay (pop. 3)

S01004968 (now DZ230024)

Shapinsay, Rousay, Egilsay & Wyre

IG zone: Orkney Islands - Isles

2011 population: 578

ADD: Gairsay (pop. 3)

Steve Morley, North Ayrshire Council

No; See attached report.

Heather Smith, Highlands and Islands Enterprise

No; Although there are few changes to the majority of Data Zones boundaries within the HIE area, HIE believe that this consultation creates an opportunity to introduce a better 'fit' in some of our rural areas through fairly minor refinement of a number of Data Zones (approximately 21 out of the 596 in the region).

HIE feels that it would be beneficial to consider the widening of some Data Zones where there are small accessible Output Areas in a neighbouring larger Data Zone. This would take account of some populated areas on the outskirts of particular villages/towns. The main areas where HIE believes there is the potential to improve boundaries are Dingwall; Nairn; Aviemore; Ullapool; Stromness; Avoch; Beaulie; Portknockie and Mosstodloch.

HIE would be happy to discuss these issues in more detail should this be required.

Aberdeenshire Council

No; please see attached spreadsheet which details suggested changes.

Cameron Thomas, Highland Council

No; Please also see appendix 1 and note that the Council has identified two additional zones to be split where the 2011 population is close to the maximum figure, development is ongoing, and the population will soon rise above 1,150.

When responding to this consultation we note that our understanding, based upon advice received from Government officials, is that the principle for change to data zones is to be based upon:

- Population change – growth or decline
- Changes in postcode zones or census output areas

Our comments to a number of the proposed changes are set out at Appendix 1. The overarching concern relates to the limitation placed on us by the pre-determined output areas. This has considerably restricted our ability to make data zones more meaningful in terms of communities. Good examples of this are:

- S00117745 crosses the A9 with the result that it is not a natural community.
- The single output area S00118267 covers a large, mainly industrial and commercial area which straddles the A9. Its size and shape has made it impossible for us to improve the proposed split of the former city centre zone S01003853.

Whilst we recognise that datazones are a statistical geography, there is a need to be aware that they are being used increasingly beyond this. For statistical purposes, data zones are being used to monitor more than just population, for example employment (through the Business Register and Employment Survey). They are also being assumed as representative of natural communities for the allocation of targeted funding by a number of Agencies and organisations. We would therefore recommend that the Government take cognisance of this in the future and attempt to harmonise data zones with administrative geographies where possible.

As set out in appendix one, we reluctantly agree with a number of the proposed changes as we recognise that there is little alternative given the underpinning geography. However we would urge the Government that in the future, consultation on output areas would assist in achieving more useful and meaningful data zone geographies.

Alex Morton, South Lanarkshire Council

No; Having reviewed the proposed datazones, and having consulted with our partner organisations in the South Lanarkshire Community Planning Partnership, we have suggested amendments to a small number of the proposed Datazones and these are detailed in attached spreadsheet and maps.

In most cases the changes are proposed to better represent community boundaries and / or to improve the homogeneity of the social composition and characteristics of the Datazone area. In the case of the changes around the Whitlawburn South area, our proposal also avoids the creation of a Datazone which would include population from the two distinct (and geographically well-separated) areas of Rutherglen and East Kilbride.

In all cases we have endeavoured to comply with the established criteria for Datazone design in terms of population numbers, communities of interest, geographical compactness, etc.

Andy Tait, Office for National Statistics (ONS) Geography

Yes, The approach taken to changing the Data Zones is in line with that taken by ONS when maintaining the lower and middle layer super output areas (SOAs) for England and Wales. SOAs were changed where populations had significantly increased or decreased, as splits or mergers of the existing zones respectively. The only other circumstances where SOAs were changed was where they were aligned to any local authority boundaries that had changed since the zones were created, and this too is in line with the approach taken for the new Data Zones. ONS therefore supports this harmonised approach across GB to maintaining its core statistical building brick geographies.

Iain Bell, NHS Lothian and City of Edinburgh Council

We support the redraw of these Zones and acknowledge their importance as a highly useful tool which is used to inform a broad range of policy, research and planning activities.

We welcome the opportunity to work with the Scottish Government in coming weeks to address the issues we have highlighted in this response.

Our consultation response is based on two principles:

1. It is important that, as far as possible Data Zones consist of populations of a similar social type as this helps to ensure that small areas (pockets) of severe deprivation are not masked by less deprived areas. In Edinburgh we know that many areas of low deprivation neighbour / interleave arrears of high deprivation.
2. We believe that the new Zones should fit, as far as possible, with the natural neighbourhoods in the city. The City of Edinburgh Council is expected to approve a final set of boundaries later this year; the new boundaries are expected to be adopted by all partners in the Edinburgh Partnership as standard neighbourhood geography.

Our response is based on a two – stage analysis:

1. Identify “focus” Data Zones

We examined the proposed Data Zones in relation to Mosaic Scotland data to determine the extent to which each Zone was dominated by one particular aggregated Mosaic band, contained a fairly even spread of bands, or consisted of populations from both ends of the deprivation scale. We are content that the majority of the proposed zones are sufficiently homogeneous, however we found that 100 “focus” Zones either had a significant spread of households across the socio – economic groups or contained significant areas of both high and low deprivation. We have appended maps showing an example of each of the Data Zone classifications and a spreadsheet listing the 100 focus Zones (appendix1).

2. Suggest an alternative configuration around selected focus Zones

We used a Geographical Information System with Mosaic Scotland data and the draft set of natural neighbourhood boundaries to further examine the 27 Zones which we found to consist of areas of high and low deprivation. We are now suggesting an alternative configuration of output areas for majority of these Zones and a number of adjacent Zones. We have appended maps covering these Zones along with a note of the suggested new output area configurations (appendix 2).

We look forward to working with the Scottish Government to refine these and the remaining focus Zones.

We ask that the maps containing the Mosaic Scotland data are not made public however we are content for the rest of our submission to be made public.

Chris Carr, Argyll and Bute Council

Yes; Although I have indicated that I am 'content' with the proposed 2011 Data Zones, this is more an acceptance that we need to live with boundaries that have been predetermined by the methodology used in their creation than with a genuine satisfaction with where the boundaries lie.

The boundaries of the 2011 Census Output areas have obviously been a key determinant in forming the boundaries of the revised datazones, and we can do nothing to influence these. However, for example, the extent of COA S0009418, which includes both the edge of Helensburgh settlement and the edge of Cardross, means that it is likely that DZ350050 will likely be affected by growth in both settlements. This will make future interpretation of any data produced at the datazone level difficult.

Similarly, in Campbeltown, the way the COA boundaries have been drawn means that DZ350009 now has to include part of what was previously one of our 15% most deprived datazones within its boundaries in order for it to cover a contiguous area. This means that the new datazone lacks social homogeneity.

The way our islands are treated has always been problematic.

The only island in Argyll and Bute where the datazone boundaries coincide neatly is Bute. All other islands are either linked with other islands or with the mainland. Again, this makes understanding our communities difficult. For example, datazone S01000755 (DZ350045) includes part of Islay, the whole of Jura and Colonsay. There are minimal transport links between Islay and Colonsay (one ferry in each direction a week in the summer). The natural linkage here would be between Colonsay and Oban. (This does not, however, align with the political / administrative boundaries used by the council, which do, in fact, link Colonsay with Jura and Islay.)

Please note: the revised boundaries do bring with them some improvements. For example, DZ350090 (Garelochhead) helps to separate the settlement population of Garelochhead from the communal establishment population at the Faslane barracks. However, having communal establishment and residential populations separated out as a matter of course would help us understand our local areas much better.

Sarah Griffin, Argyll and Bute CHP – Public Health

No; I have one suggestion for improvement (see comment about intermediate geographies); we are limited in re-drawing datazone boundaries by the census output areas already set. I think that more improvements could be made to datazone areas but in identified cases changes have not been possible due to the census output areas.

Please note that with no GIS software I found it difficult to comment on this consultation; it was difficult to understand the proposed datazones – especially where boundaries were drawn around islands – an ability to shade a datazone would have helped with this.

Colonsay is currently part of datazone S1000755 which also includes Jura and part of Islay (DZ350045). These islands form their own distinct communities and it makes little sense to group them together (other than that the population of Colonsay and Jura are too low to form datazones independently). Although Islay and Jura are often served by the same NHS teams, Colonsay is primarily accessed from Oban and is served by NHS teams administrated from Oban. Therefore it would be preferable to include Colonsay in a datazone with Coll and Tiree, Easdale or Kerrera. However all these alternatives are also 'unnatural'. I have discussed this with a colleague at Argyll and Bute Council and although the Council also serves Colonsay from Oban they are reluctant to recommend that Colonsay is included in a datazone close to Oban; this is because politically Colonsay is included in a multimember ward with Islay and Jura and because there isn't a clear alternative as to where to place Colonsay.

It would be helpful to be able to separate the military from non-military populations in Argyll and Bute. DZ350090 (Garelochhead) will help to separate the settlement population of Garelochhead from the communal establishment population at the Faslane barracks.

Bruce Whyte, Glasgow Centre for Population Health

Yes; We understand the rationale for redrawing data zones and agree in principle with the approach. There has been considerable population change since the current data zones were designed, leading to some becoming much larger in terms of population and others losing substantial proportions of their population - in some cases all their population. For example, there are now three data zones in Glasgow which according to the 2012 version of SIMD have no population. This is thought to be principally due to demolitions.

We cannot comment on the technical and localised aspects of the proposals but understand the need to redesign data zones.

The redefinition of data zones does, however, raise issues in relation to historical data (e.g. SAPE population estimates, SIMD). We understand that the Scottish Government does not plan to provide revised historical data aligned to the new data zone boundaries. This is unfortunate because it will impact on the ability to create

local trend data for a range of health and socio-ecological indicators at the level of neighbourhoods and other local geographies.

Ian Douglas, NHS Highland

No; NHS Highland has worked closely with the Highland Council in reviewing the draft data zone boundaries and would support the changes proposed in Appendix 1 of the submission made by the Highland Council.

Anonymous

No; Please note, we have had limited resources available to look at this and have the following response which is by no means comprehensive.

2011 OUTPUT AREA changes

1. Move Output Area S0126993 from DZ240180 to DZ240181 - Pitlochry
2. Move OA S0126198 from DZ240027 to DZ240036 - Oudenarde/Bridge of Earn

See attached maps for both of these. The red cross marks the OA in question.

Other comments

1. We have a general concern over data zones splitting a number of our settlements. This has been the case since 2001 and poses us difficulties but we understand that this can happen because of the geographic nature of our area and would have a problematic knock-on effect if we attempted to make changes in most instances.
2. We also have some issues that are caused by the Output Area boundaries. A prime example of this is DZ240135 at Luncarty. The Output Area S00127367 crosses the River Tay and therefore joins Luncarty with Stormontfield which is an extremely inappropriate boundary. The River Tay is a wide river and the 2 communities are very separate. I have mentioned this OA anomaly before to the GRO when it first occurred in 2001 but it has remained the same in 2011.
3. We notice that data zone S01005071 has been removed and is now joined with DZ240110 (North Muirton in Perth). This is a regeneration area where buildings have been demolished and there is a programme to rebuild in place ready to go ahead. Therefore the data zone will probably be split again in the future. We wonder if this is the best way to handle this sort of situation? Our preference would have been to keep the area split in 2 for comparison purposes, specifically for other data provided at data zone level over time as the community regenerates.
4. There have been some improvements made to some of the data zones in the areas that do not cover settlements. These can now be a better fit to some of our higher geographies but in some instances this can be at the expense of

the settlement split. An example of this is the area between Alyth and Coupar Angus. Whilst the area between the two is now better, we have lost some of our comparability for Alyth though the Coupar Angus area is an improved boundary.

Jennifer Boag, Falkirk Council

No, Please see attached maps and documentation, including lists of 2011 Census Output Areas and their reassignment, for suggested changes – shapefile to follow

Keith Whitefield, Angus Council

No; See attached paper.

Eva Milroy, Crichton Institute

Yes; We are generally content with the revisions, but there are some improvements that could be made. During conversations with other local stakeholders there has been a consensus that some of the zones do not provide a true reflection of that area. NHS Dumfries & Galloway have done some work on this and we support their findings. Some new Output Areas do not follow a logical geography: e.g. S00097235 in Dumfries straddles the Nith and S00097918 ducks in and out of the existing houses on one road. This has a knock-on effect to the underlying logic of the datazones.

The Output Areas underlying the datazones frequently do not snap to our traditional locality boundaries. In some cases this is sensible e.g. where a farm road feeds into the OA from over the boundary. However, where possible we would like the OA/DZ to snap more closely to the traditional boundary. For example: S01001001 has folds both concave and convex to the locality boundary. If there is a sound argument for why these are such, we would welcome having a discussion about it with the mapping team. It is not clear that OA boundaries are open to discussion.

A further issue we have for community planning is that the DZ frequently do not snap to settlement boundaries, see below an illustration of Castle Douglas

Crichton Institute is relying on this type of data and datasets and report produced by other stakeholders for their research work, hence boundaries that provide as close a reflection to the actual situation within must be achieved. For instance, NHS Dumfries & Galloway frequently do community planning at the settlement level because of the rurality issues they have, but when aggregating DZ they currently have to accept that certain quarters of the village are either not included or bring with them a huge tract of rural farmland. It is understandable that 'pinching' the most populous OA from the DZ would require the rural DZ to be very large indeed. However, we support their argument that it would be of interest to explore the implications of having the DZ snapping to the settlement.

Another example is Stranraer, where DZ S01000926 and also OAs S00097581, S00097555, S00097579, S00097560, S00097561, S00097559, S00097580, S00097582, S00097562, S00097563, S00097436, S00097574 should really be included in the town IZs.

Anthony Jenkins, Dundee City Council

Yes; Education Information Contact:

Data Zone 2011 S01001232_1,

Eastern end of Strathyre Avenue - DZ boundaries cut right across homogenous housing estate.

Data Zone 2011 S01001243_1

Ardler. Have a look at this overlaid on the Aerial photography and it doesn't look like a 'sensible' boundary

Communities Contact:

These relate to the proposed data zones around the Dalclaverhouse/ Emmock woods area. There are justified new boundaries here, but one of the new datazones appears to be a row of houses and another (south of William Fitzgerald way) is to my recollection a farm house plus two or three smallholdings. This hardly falls into the criteria of between 500 and 1000 inhabitants. I would think the whole of Emmock woods wouldn't constitute this population as I think there are roughly 330 houses here and it appears there are 5 data zones in this small area?

In addition, I would think it would make sense to divide the datazone S01001264 into 3 parts i.e. the boundary at Emmock woods extends north to the city council boundary and east to Forfar Road? There aren't any houses in this area. In addition surely another boundary line could go up Duntrune road thereby making a fintry boundary go north and this keeps the Ballumbie data zone tighter for future modification? I don't know if we can recommend this, but it seems to be a long data zone with very few properties west of Braeview Academy.

Martin Taulbut, NHS Health Scotland

Yes; NHS Health Scotland has a key strategic aim to reduce health inequalities in Scotland. Therefore it would be helpful to know the scale of the impact of these changes on measures to monitor health inequalities, especially the annual *Long-term Monitoring of Health Inequalities: Headline Indicators* report series. We would recommend that the views of the authors of this report are taken into account.

We would also welcome the addition of a reminder to users of the discontinuity to SIMD created by these changes.

Ananda Allan, NHS Dumfries and Galloway

Yes; We are generally content with the revisions, but there are some improvements that could be made. Some new Output Areas do not follow a logical geography: e.g. S00097235 in Dumfries straddles the Nith and S00097918 ducks in and out of the existing houses on one road. This has a knock-on effect to the underlying logic of the datazones.

The Output Areas underlying the datazones frequently do not snap to our traditional locality boundaries. In some cases this is sensible e.g. where a farm road feeds into the OA from over the boundary. However, where possible we would like the OA/DZ to snap more closely to the traditional boundary. For example: S01001001 has folds

both concave and convex to the locality boundary. If there is a sound argument for why these are such, we would welcome having a discussion about it with the mapping team. It is not clear that OA boundaries are open to discussion.

A further issue we have for community planning is that the DZ frequently do not snap to settlement boundaries, see below an illustration of Castle Douglas:

We frequently do community planning at the settlement level because of the rurality issues we have, but when aggregating DZ we currently have to accept that certain quarters of the village are either not included or bring with them a huge tract of rural farmland. It is understandable that 'pinching' the most populous OA from the DZ would require the rural DZ to be very large indeed. However, we would be interested in exploring the implications of having the DZ snapping to the settlement. Would this give better grain detail for issues such as deprivation? Because currently many of the DZ that are settlement/rural hybrids come out banded as a 3 and do not identify rural deprivation very well.

NHS D&G would be happy to collaborate on some pilot analysis if we could have some of the underlying stats at OA level.

Another example is Stranraer, where DZ S01000926 and also OAs S00097581, S00097555, S00097579, S00097560, S00097561, S00097559, S00097580, S00097582, S00097562, S00097563, S00097436, S00097574 should really be included in the town IZs.

Consultation question 2. Do you agree that 2011 Data Zones should use the median methodology for the calculation of centroids?

David Connolly

Yes

Rae Taylor, NHS Tayside

No; The median methodology would have been preferable were it not for a wish to be able to compare with 2001 data zone data wherever possible. It would not be helpful if areas which did not change at all between the 2001 and 2011 censuses changed their allocated geographies due solely to this change of methodology. However, it is recognised that the impact of this change would be very small overall.

Francesca Lynch, Community Links (South Lanarkshire)

Yes

Tom Snowling, Aberdeen City Council

Yes

Erin Murray, Scottish Borders Council

No; In general the principle makes sense but creating the intermediate zones to reflect larger communities would be better. Please see the attached files.

The Scottish Borders proposed Intermediate Zones based on the 2011 Based Scottish Borders proposed Data Zones reflect the communities.

Fred Nimmo

Yes

Jan Lyell, NHS National Services Scotland

Yes; We did not find the justification for the use of medians very clear. We appreciate that there is no gold standard right answer. We are content that medians are used rather than means though the use of population weighting does help to reduce the impact of a small number of people living far away from the majority.

The previous centroids were based upon the population weighted mean of the output area centroids. These, in turn, were based upon the means of the individual locations in the output area (weighted by the household size). This is consistent.

The proposal appears to use the medians of the individual locations within the output area and then the medians of the output areas. It is not clear if the median in the output areas takes into account the household size. We think that it should. Similarly there is no reason why the median of the centroids of the output areas could not be calculated by taking into account the populations in the output areas.

Emma Fitzpatrick, East Dunbartonshire Council

Yes

Coryn Barclay / Clare Campbell, Fife Council / NHS Fife

Don't mind; We don't mind what method is used for the calculation of centroids, provided that the centroid falls within the datazone boundary, and that any centroid that falls out with the datazone boundary is addressed.

Scottish Ambulance Service

Yes

Paul Landman, East Renfrewshire Council

Yes

Jan Freeke Glasgow City Council

Yes; N/A

Lewis Ramsay, Scottish Fire and Rescue Service

Yes; The Service has no strong view on this, as the change to the calculation of the centroid is in the main a technical matter relating to aggregation into the higher geographies, not of the datazones themselves.

Alison Craig, South Ayrshire Council

Yes; The key advantage of the median is that it is not as heavily influenced by extreme values as the mean. Therefore, it is less likely to be influenced by values far away from what would be considered to be the population centre of the Data Zone. This is likely to provide a better means of determining how urban or rural a particular Data Zone is.

Andrew Cotton, West Lothian Council

No; Excel sheet attached with the proposed changes in it.
See Summary of rationale and proposed changes in West Lothian for detailed explanation or rationale behind proposed changes.

Paul Davidson, Stirling Council

Yes; No comment

Margaret Watts, NHS Ayrshire and Arran

Yes; It is appropriate that the data zone centroid reflects the centre of the population in terms of its distribution rather than its arithmetic, so we concur that the median better represents this.

Anna Whelan, Orkney Islands Council

Yes; We have no difficulty with the median method for the calculation of centroids for the purpose of facilitating the allocation of data zones to intermediate geography zones. Our problem is with subsequent uses of the centroids, especially in SIMD. In a data zone comprising several small islands, the centroid – calculated by whatever method – may end up being in the middle of the sea. Their use as the starting point for drive times under the geographical access index has led to some risible results.

Steve Morley, North Ayrshire Council

Yes; North Ayrshire Council agrees that 2011 Data Zones should use the median methodology for the calculation of centroids.

Heather Smith, Highlands and Islands Enterprise

Yes; Population distribution within the Highlands and Islands of Scotland is very dispersed, resulting in some large rural Data Zones in the region. As such, using the median rather than mean ensures that measures are less skewed by outliers in data arising as result of relatively small numbers of individuals, living far away from the population centre.

On examination of the location of medians and modes for each Data Zone and Intermediate Zone within the Highlands and Islands they do not appear to differ greatly within each individual Data Zone.

Aberdeenshire Council

Yes

Cameron Thomas, Highland Council

Yes, The Council agrees that the use of medians (rather than the mean) has the potential to give a better location for the centroid, but believes that a more accurate method is available than basing the Data Zone centroid on the centroid of the output areas that make it up.

The One Scotland Gazetteer gives an accurate location for almost all residential properties in Scotland and it should be possible to use the X and Y co-ordinates from the Gazetteer to calculate the medians for all of the houses that lie within each datazone, and then snap this to the nearest house. This would give the most accurate position for the centroid and ensure that it falls within the boundary of the zone. In the event that the Gazetteer is not available, the former OS Address Point or current Address Base data sets could be used.

Alex Morton, South Lanarkshire Council

Yes

Andy Tait, Office for National Statistics (ONS) Geography

Yes, The median methodology was also used to calculate centroids for the output areas (OAs), and super output areas ((SOAs) in England and Wales, using the ESRI ArcGIS function. A median value was considered to be less influenced by outliers than a mean one. Again ONS therefore supports this consistent approach across GB to the calculation of its population weighted centroids, which are important as they are used to best-fit the building brick geographies to all the output geographies for which statistics are produced.

Chris Carr, Argyll and Bute Council

Yes; This seems reasonable.

Sarah Griffin, Argyll and Bute CHP – Public Health

Yes; This seems to be sensible. I have not examined in detail how this change will affect datazone allocation to other geographies in practice but it appears that there will be little change for Argyll and Bute.

Bruce Whyte, Glasgow Centre for Population Health

Yes; N / A.

Ian Douglas, NHS Highland

Yes

Anonymous

Yes

Jennifer Boag, Falkirk Council

Yes; The examples give in the Consultation document suggest that the median methodology may be better for rural areas. More examples, particularly urban examples, might have been helpful. Although this suggests an improvement and so is being supported, we would wish to see the effect in the Falkirk Council area and would reserve our final position on the change, until we have seen the results in our area.

Keith Whitefield, Angus Council

Yes

Eva Milroy, Crichton Institute

Yes; Generally most of these seem to be on the right side of the respective boundaries they are aggregated to. The logic seems sensible.

Anthony Jenkins, Dundee City Council

Yes

Martin Taulbut, NHS Health Scotland

Yes; The approach seems sensible and appropriate.

Ananda Allan, NHS Dumfries and Galloway

Yes; Generally most of these seem to be on the right side of the respective boundaries they are aggregated to. The logic seems sensible.

Consultations question 3. Are you content with the proposed best 2011 Intermediate Zones?

David Connolly

Yes

Rae Taylor, NHS Tayside

Yes; The description of the methodology for data zones explicitly states that the first cut for the 2011 data zone would be aggregation of 2011 census output areas to the 2001 data zones. It would be helpful if a similar approach to the intermediate geographies was taken such that the default would be aggregation to the 2001 intermediate geographies wherever practical.

Francesca Lynch, Community Links (South Lanarkshire)

Yes

Tom Snowling, Aberdeen City Council

Yes

Erin Murray, Scottish Borders Council

No; Please see the attached files for the allocation of Census Output Areas to Scottish Borders proposed Datazones and the Scottish Borders proposed Intermediate Zones.

All of the Scottish Borders proposed Intermediate Zones' population are between 2,500 and 6,000.

Also in the files are Scottish Borders 2011 Datazone allocations to Multi-Member Wards (These are significantly better best fits to Multi-Member Wards than what was available for 2001 based Datazones or the initial 2011 based Datazones).

Fred Nimmo

No; Similar comments as for datazones, above.

Jan Lyell, NHS National Services Scotland

Yes; N/A

Emma Fitzpatrick, East Dunbartonshire Council

Yes

Coryn Barclay / Clare Campbell, Fife Council / NHS Fife

Yes; Our 2010 response assumed that any redraw of datazone boundaries in Fife would have little impact on interzone boundaries, except where a change may be needed to take account of the substantial growth in population in the Dunfermline Eastern Expansion. The existing interzone S02000493 Dunfermline East & Pitcorthie East (population of 12,038) should be split to become four new interzones once the 2011 datazones are finalised:

- Dunfermline Pitcorthie East (3,461)
- Dunfermline Masterton (2,122)
- Dunfermline Duloch South (4,232)
- Dunfermline Duloch North and Lynebank (3,123)

On closer examination of the proposed datazones and their fit to interzones, some datazones are no longer contiguous, requiring some datazones to be allocated to a different interzone, or redefined to make both datazones and interzones more meaningful.

It will be necessary to merge S02000509 and S02000513, to take account of changes to proposed datazones and be meaningful at a local level.

The number of interzones in Fife will increase from 103 to 105.

Proposals for how Fife interzones affected by the datazone redraw should be dealt with are included in the annotated maps and associated spreadsheet.

Scottish Ambulance Service

Yes

Paul Landman, East Renfrewshire Council

Yes

Jan Freeke Glasgow City Council

Yes; N/A

Lewis Ramsay, Scottish Fire and Rescue Service

Yes; No comment.

Alison Craig, South Ayrshire Council

No; The changes proposed by South Ayrshire Council have implications for 8 Intermediate Zones within South Ayrshire. (Prestwick East, Prestwick West, Prestwick Airport and Monkton, Coylton, Dundonald, Loans and Symington, Muirhead, Dalmilling and Craigie, Annbank, Mossblown and Tarbolton.

The changes result in Intermediate Geography Zones providing better reflection of communities.

The changes proposed by South Ayrshire Council would result in the number of Draft 2011 Intermediate Zones remaining the same at 24.

All of the South Ayrshire proposed Draft 2011 Intermediate Zones have a population of between 2,500 and 6,000.

Please see the attached spreadsheet, 'DZ2001 Proposed SAC' tab, for the allocation of Census Output Areas to South Ayrshire proposed Draft 2011 Data Zones and the South Ayrshire proposed Draft 2011 Intermediate Zones.

Andrew Cotton, West Lothian Council

No; Excel sheet attached with the proposed changes in it. See Summary of rationale and proposed changes in West Lothian for detailed explanation or rationale behind proposed changes.

Paul Davidson, Stirling Council

No; See above regarding intermediate zones.

Margaret Watts, NHS Ayrshire and Arran

No; As above, we concur with our local authority colleagues that the intermediate zones best fit and boundary alternations should reflect natural community boundaries to enable meaningful inferences to be drawn.

Anna Whelan, Orkney Islands Council

Yes; Our proposed changes to Data Zones will not affect our Intermediate Geography zones other than to ensure that all isles populations are included in the "Isles" IG zone.

Steve Morley, North Ayrshire Council

No; Please see attached report.

Heather Smith, Highlands and Islands Enterprise

Yes; HIE are content with the proposed best fit for 2011 Intermediate Zones as presented in the consultation document. However, this would cease to be the case if further changes were made as a result of this consultation exercise. Currently, the 2011 Intermediate Zones within the Highlands and Islands are broadly similar to the 2001 boundaries. Where there has been change in recent years, it accurately reflects the growth of the area over the past decade.

Aberdeenshire Council

Yes

Cameron Thomas, Highland Council

Yes, the Council agrees with the proposals for best fit 2011 Intermediate Zones.

Alex Morton, South Lanarkshire Council

Yes

Andy Tait, Office for National Statistics (ONS) Geography

Yes, Again the approach mirrors that used in England and Wales for its equivalent geographies, which we support.

Iain Bell, NHS Lothian and City of Edinburgh Council

We examined the proposed Intermediate Zones in relation to the City of Edinburgh Council's draft natural neighbourhoods.

We identified several proposed Intermediate Zones in which no single natural neighbourhood accounted for a majority of households in that Intermediate Zone. Of these, three Intermediate Zones resulted in groupings of neighbourhoods which raise issues around the integrity of the Intermediate Zones. We have appended maps of these Intermediate Zones (appendix 3).

Any changes to the Data Zone configuration will have a concomitant effect on the Intermediate Zones and we would like to continue to work with the Scottish Government to refine the Intermediate Zones.

Chris Carr, Argyll and Bute Council

No; The Whiskey Isles IG area makes little sense in terms of the communities in our area. There are no natural links between the islands of Luing, Easdale and Seil with Islay, Jura or Colonsay, and yet they form one IG area. Moreover, the IG area does not accord with the Administrative Areas that are used by both the Council and the NHS for service planning purposes, wherein Luing, Easdale and Seil are part of Oban, Lorn and the Isles and the other islands are part of Mid Argyll, Kintyre and the Islands.

(Incidentally, if the names are going to be retained, could 'whiskey' be spelled 'whisky' for future IG areas?)

To align with our Administrative Areas, it would be helpful if the datazone containing Inveraray (DZ35099 / S01000807) could be included as part of the Mid Argyll IG area.

Similarly, an IG area where in DZ350015 (S01000725), DZ350029 (S01000739) and DZ350028 (S01000738) were also part of Mid Argyll would be more useful to us; this would align with the operational areas used by both social work and the NHS, and would make any data published at this scale more useful to us.

Sarah Griffin, Argyll and Bute CHP – Public Health

No; Intermediate geographies are important to the NHS in Argyll and Bute because of the production of ScotPho health and wellbeing profiles using them.

The Whiskey Isles Intermediate Geography (134) makes little sense as Islay and Jura are administered from Kintyre. Colonsay and Easdale are administered from Oban. I think that Islay and Jura are of sufficient size that they could form their own intermediate geography (with Colonsay if necessary).

It also makes little sense that datazones in Tarbert and surroundings (725, 738 and 739) are not included in Kintyre trail as these three geographies are functionally part of the greater area of Mid-Argyll (including Lochgilphead and Ardrishaig) and not considered part of Kintyre. Would these three areas, possibly along with Knapdale (736) form enough population to make an Intermediate geography?

I believe that Inverary (DZ350099) should become part of the Mid-Argyll IG (145; S02000145). Inverary is part of the wider area of Mid-Argyll for both the NHS and the Council in Argyll and Bute.

The Loch Awe IG (147) might then include Easdale (DZ350098). This would be necessary if Easdale is no longer to be included in Whiskey Isles (IG134). However, it makes little sense to include Easdale and Taynuilt in the same IG. It might be possible to split DZ1000808 (3500100) so that part of it can be with DZ350112 (SOAs 94083, 94082, 84081). It might be necessary to place SOA94078 with the rest of DZ 350100. I'm not sure that this is feasible in terms of population sizes. I think to get suitable population sizes, boundaries around Benderloch Trail and Loch Awe will need changing but I'm struggling to give details readily based on the information that I can access. It might be that it makes sense to propose another IG including Easdale and areas south of Oban including DZ350102.

Bruce Whyte, Glasgow Centre for Population Health

Yes; N/A.

Ian Douglas, NHS Highland

Yes

Anonymous

Yes

Jennifer Boag, Falkirk Council

Yes, We are currently content with the proposed new IZs but think that some of the changes which we are suggesting for the datazones will require further changes to the IZs and would request that we are consulted on the consequential changes. For example, if our proposal regarding current datazone S01002379 is accepted - which involves creating a new datazone covering the new housing in the Redding area - we would want the new housing datazone included in IZ S02000447 and not in S02000441 as in the currently proposed scheme.

Other examples can be provided on request.

Keith Whitefield, Angus Council

No

Eva Milroy, Crichton Institute

No; The IZ bear little resemblance to the traditional localities that local residents would understand. No less than 6 IZ straddle the boundaries, as shown below, and some are very oddly shaped to describe physical areas; see areas in the dark grey. This is probably due not just to the odd shapes of the DZ but of the underlying OA.

And the IZ particularly in the town centre of Dumfries do not match up with local ideas of neighbourhoods. Below the map indicates the old IZ in colour and the new IZ in dotted lines. Together with local stakeholders, we would value some discussion around these before they are set. For instance, the IZ Summerville does not include all the new build at Barnhill and half of the Georgetown neighbourhood is arbitrarily assigned to Dumfries

South (S01001002, S01001006 and S01000999 would all probably be better in Georgetown IZ). This is particularly important in terms of the work NHS Dumfries & Galloway have done around alcohol licensing, which had to be done at old IZ level and one criticism was that the neighbourhoods did not make sense.

Further issues which have arisen during our discussions include:

- Suggestion that the way that DZ are referred in print are standardised as they can be Datazones, Data Zones, Data-zones, etc.
- It makes more sense to use tideline boundaries than edge of realm
- There is local interest in having a consultation with local communities giving DZ a specific regional name for ease of identification.

It would in the interest of local stakeholders and communities to have a multi-agency workshop with the mapping team to discuss some of these issues and arrive at a solution that is agreed across the region.

Anthony Jenkins, Dundee City Council

Yes;

Martin Taulbut, NHS Health Scotland

Yes; No comments.

Ananda Allan, NHS Dumfries and Galloway

No; The IZ bear little resemblance to the traditional localities that local residents would understand. No less than 6 IZ straddle the boundaries, as shown below, and

some are very oddly shaped to describe physical areas; see areas in the dark grey. This is probably due not just to the odd shapes of the DZ but of the underlying OA.

And the IZ particularly in the town centre of Dumfries do not match up with local ideas of neighbourhoods. Below the map indicates the old IZ in colour and the new IZ in dotted lines. We would value some discussion around these before they are set. For instance, the IZ Summerville does not include all the new build at Barnhill and half of the Georgetown neighbourhood is arbitrarily assigned to Dumfries South (S01001002, S01001006 and S01000999 would all probably be better in Georgetown IZ). This is particularly important in terms of the work we have done around alcohol licensing, which had to be done at old IZ level and one criticism was that the neighbourhoods did not make sense. We have an opportunity to improve this for the future.

Further issues which have arisen during our discussions include:

- Suggestion that the way that DZ are referred in print are standardised as they can be Datazones, Data Zones, Data-zones, etc.
- It makes more sense to use tideline boundaries than edge of realm
- There is local interest in having a consultation with local communities are giving DZ a specific regional name for ease of identification.

We would ideally like to have a multi-agency workshop with the mapping team to discuss some of these issues and arrive at a solution that is agreed across the region.

Annex 3 – Accessing responses to the consultation

Non confidential responses to the consultation are available to the public in the following ways:

- On the Scottish Government consultation web pages (<http://www.scotland.gov.uk/consultations>);
- At the Scottish Government Library, K Spur, Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD. Copies of responses can be viewed by visiting the library or can also be provided by post. Charges for photocopies are made on a cost – recovery basis. To request copies by post and enquire about charges or make an appointment to view responses at the library, contact the Library on 0131 244 4565.



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