

Scotland's Parish Populations, 1755 to 1891

Dataset with mapping frameworks: Documentation.

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1. Background

This dataset consists of an Excel file which contains population counts for Scottish civil parishes for each census from 1801 to 1891 together with Webster's figures for c1755. It also includes data on parish area as reported in the 1881 census and population densities based on these areas. In addition, the dataset contains a variable which links the parish data to a set of specially created GIS polygons which allow the parish data to be mapped. More details on this GIS structure can be found in Section 3 of this document. A separate dataset is also being prepared with population counts up to 2001 and a variable to link to the revised boundaries introduced after 1891.

Scottish parish boundaries remained remarkably unchanged from the later eighteenth century until the 1950s (Unlike the situation in England and Wales), except for significant but well-documented changes around 1891 and in a few places in the 1920s. The vast majority of parish boundaries are still the same today, though the introduction of output areas as the basic unit of census counting has meant that figures as published at recent censuses (1991, 2001, 2011) do not precisely match with the formal parish boundaries (which no longer have any legal status).

The dataset used here takes as its starting point work done in the 1980s by Donald Morse, who assembled parish data for censuses up to 1951 based on tabulations provided in the Tables 4B of the county reports from the 1951 Census. These were used in Anderson and Morse (1990; 1993a; 1993b). For our book *Scotland's Populations from the 1850s to Today* (Anderson and Roughley 2018), all these data were re-checked, and corrected or modified in a number of ways.

In parallel, a major exercise was undertaken by Corinne Roughley to create new parish-level map frameworks for pre- and post-1891 civil parishes. The only previous parish map frameworks were derived from maps originally produced for the *New Statistical Accounts* in the 1840s (Lizars and Lizars 1853). The boundaries in these maps were often very rough and sometimes erroneous, and maps for different counties were drawn on different projections, which made it impossible to join them into a map which even approximated to the correct shape of Scotland, let alone one which could be conjoined with maps for England and Wales. Some of our new work was done in association with the University of Essex's ICeM project (which partly funded it)¹.

¹ Award RES-062-23-1629: <http://www.essex.ac.uk/history/research/icem/default.htm>

2. Dataset documentation

Geographic units

In most cases each parish is included as a separate unit, but, because of boundary changes, data on a small number of parishes have been combined. This applies particularly to the four cities, where expansion of the urban area led to quite frequent changes, many of which we have not been able to map precisely, and which anyway make it impossible to examine size changes for consistently bounded 'cities' over time. In general, we have tried to consolidate the data for the four cities into areas which approximate to their population areas around 1920.

The dataset also contains a link variable to join to shapefiles which allow the data to be mapped (for example by change over time in populations or densities). The densities are based on parish areas reported in the 1881 census and are calculated as populations both per 100 acres and per square kilometre.

In a small number of cases, population counts are not available for every year.

The simplest case is where, for one or more years of observation, we only have population figures for two parishes combined. In these cases, no population figure is included in the dataset for either parish (though the combined figure in each case is given below), and the density figure shown for each parish is the population for the two averaged across the sum of the area of both parishes.

So:

Ardnamurchan and Arisaig & Moidart for c1755: the combined population according to Webster is 5,000, total area of the two parishes from the 1881 Census is 216,969 acres: no population figure for either parish is included in the dataset, and density figures for c1755 are the average for both combined (2.30 per 100 acres, 5.69 per square kilometre).

Half Morton and Langholm: Half Morton population was included in Langholm for c1755 (1,833) and in 1811 (2,392). No population figures are included in the dataset for either parish in these years, and density is shown as the average across the two parishes.

Sandwick and Stromness were combined by Webster for c1755 as 2,677. No population figures are included in the dataset for either parish in these years, and density for c1755 is shown as the average across the two parishes.

Dunipace was included by Webster (quite correctly) in Larbert for c1755 with population of 1,864. No population figures are included in the dataset for either parish in these years, and density for c1755 is shown as the average across the two parishes.

Islay. Webster did not distinguish the three separate parishes of Islay, giving only a total population for c1755 of 5,344. No population figures are included in the dataset for any of the three parishes, and density for c1755 is shown as the average across the whole island.

The remaining cases are more complicated, because new parishes were created out of existing parishes (Teviothead in 1851, and Ardoch in 1861). In these two cases, separate population figures for

the previously existing parishes have been included in the dataset for the years prior to the creation of the new parish. There is then a break in the series and subsequent figures are for the revised boundaries. However, because the boundaries of the new parish and its populations cannot be identified separately before its creation date, and because parish acreages are only available for the first time for 1881 (i.e. after the start of the new parishes) it is not possible to provide robust individual density data for any of the pre-existing parishes until after the change took place. Density figures before the creation date are thus shown in the dataset as the average across the pre-existing parishes plus the new parish.

So:

Arngask was created in 1861 out of Blackford, Dunblane and Lecropt, and Muthill. The parish populations in the dataset for c1755 to 1851 are for the three pre-existing parishes at their pre-change boundaries, and there is then a break in the series, with the 1861 and subsequent figures relating to the new and smaller boundaries, and Arngask appearing for the first time. By contrast, density figures are included for all four parishes throughout, before 1861 as the average across all four parishes, and then from 1861 for each parish individually. In this case, because population density in Arngask, certainly in 1861, was not markedly different from that of the other three parishes, and because they were not that different from each other, the results seem a reasonable representation of the situation and probably of change in densities over time.

Teviothead was created in 1851 out of Cavers and Kirkton and Hawick and Wilton. The parish populations in the dataset for c1755 to 1841 are for these parishes at their pre-change boundaries, and there is then a break in the series, with the 1851 and subsequent figures relating to the new and smaller boundaries of the pre-existing parishes, and Teviothead appearing for the first time. By contrast, density figures are included for all four parishes throughout, before 1851 as the average across all three parishes, and then from 1851 for each parish individually. In this case, however, the result is not quite so satisfactory because population density in Teviothead, certainly in 1861 when it was 4.32 per square kilometre, was significantly lower than that of Cavers and Kirkton (17.95), and dramatically different from Hawick (419.69). The result is that the growth of Hawick as a very significant local textile centre is totally concealed (its density even on its too large boundaries, was already 147 in 1755 and 166 in 1801 and then grew to 210, 245, 276 and 341 at the four subsequent censuses: all these figures on post-1851 boundaries would have been somewhat higher). The alternative of using these figures for mapping Hawick and Wilton (while recognising that even they are in fact rather too low) should clearly be born in mind. However, Cavers and Kirkton also show some similar problems, though on a much lesser scale, their densities calculated against the too large boundaries ranging from 13.4 in 1755, to 17.2, 17.1, 18.4, 19.4, and 20.4 at the first five nineteenth century censuses.

Variable List for the Excel population spreadsheet

Footnotes supplement the descriptions, and comment on any special features in the way the variables and values are calculated or described.

<u>Columns</u>	<u>Variable name</u>	<u>Definition or source</u>
A	JOIN_NAME_	Links the data for each parish to its shapefile polygon
B	Census_name	The modern name (or names) of each parish or parish group ²
C	County	The county to which each parish has been allocated ³
D	Area1881	The area of each parish (in acres) as reported in the Population Tables of the 1881 Census
E	P1755	c1755 populations reported in <i>Webster's Account</i> ⁴
F to O	P1801 to P1891	Parish populations from censuses 1801 to 1891 ⁵
P	D1755ac81	Population density per hundred acres based on areas published at the 1881 Census
Q to Z	D1801ac81 etc	Similar density figures for each Census 1801 to 1891
AA to AK	D1755km etc	Similar data in persons per square kilometre

² Parish names are in general those used in the 1951 census. The only major exceptions are for Edinburgh and Glasgow where parishes have been amalgamated so as roughly to reflect the boundaries of the parishes that were included within the 'City' parishes around 1920 (see text above).

Where two or more names are joined with 'and' this normally reflects a situation where two separate parishes had at some point been joined in the past and were subsequently known by the name of both parishes (e.g. 'Walls and Sandness').

Where two or more names are joined by 'with', this indicates that the populations have been combined by us throughout, normally because boundary changes or amalgamations took place at some point during the nineteenth century so this is the only way to provide consistent data over time (e.g. 'Fetlar with Yell').

Where one or more names are included in brackets, we have added a name to clarify what is included (e.g. 'Sandsting (and Aithsting)') or to reflect the fact that more than one name has sometimes been used for a parish over time (e.g. 'Yester (or Gifford)').

³ Note that, especially up to 1891, a quite large number of parishes were split between more than one county, and some changed county over time. The county names used here usually reflect the post-1891 locations.

⁴ Webster (1755). These are the only available figures for each parish for the mid-eighteenth century, but are of very variable robustness (see Anderson 2011).

⁵ Note that these are not always exactly the figures reported at any individual census because sometimes figures were revised at a later date to take account of errors or omissions. These are in most cases the figures included in Tables 4B in the County reports of the 1951 Census, except in a small number of cases where errors and misprints in those tables have been corrected.

3. GIS shapefile

The pre-1891 Scottish parish boundary framework consists of an ESRI shapefile consisting of .shp, .shx, .dbf, .prj, .sbn, .sbx. files.

There is one polygon in the shapefile relating to each entry in the Excel spreadsheet. The only exceptions are a small number of areas which were not claimed by any parish, were held in common by more than one parish, or where the correct parish has not been traced.

It derives data from four main sources:

1. Historic coastline of Scotland and English border used with permission from Dr Max Satchell, who supervised the original onscreen digitisation from EDINA Historic Digimap OS 1st edition maps.⁶
2. Parish boundaries (but not coastline) were then copied from UKBorders 1951 digital boundaries, where appropriate, using a GIS overlay function.⁷
3. Parish boundaries which differed from 1951 boundaries, or where the 1951 boundaries were below the standard of accuracy desired, were digitised from the National Library of Scotland collection of digital historic Ordnance Survey mapping; this included georeferenced mapping made available to the Project through their WMS, plus limited use of EDINA historic mapping. All boundary changes were verified by Michael Anderson through cross-reference to Boundary Commission reports and footnotes in the Censuses.⁸
4. The resulting polygons were then populated with parish names from a revised, approximately georeferenced, and updated version of the UKBorders 1890 parish framework and additional parish names were added where appropriate. The final polygons were then checked for locational accuracy and parish name using the NLS WMS maps.⁹

⁶ Dr Satchell's vector coastline is available from:

<<http://www.geog.cam.ac.uk/research/projects/occupations/britain19c/boundaries.html>>

⁷ UKBorders 1951 boundaries: http://ukbsrv-at.edina.ac.uk/html/get_datasets.html?data=historic_boundaries.html

⁸ National Library of Scotland kindly provided access to their Web Map Service for historic Ordnance Survey maps for Scotland. Further enquiries should be addressed to Christopher Fleet.

⁹ UKBorders 1890 boundaries:

<http://ukbsrvat.edina.ac.uk/html/get_datasets.html?data=historic_boundaries.html>

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About the Authors

Professor Michael Anderson was Senior Vice-Principal of the University of Edinburgh from 2000 to 2007. He has served as a member of the Economic and Social Research Council, the Council of the British Academy, the Council of the Royal Society of Edinburgh, and the British Library Board, and he chaired the Board of Trustees of the National Library of Scotland for 12 years. He is currently a member of the Office of National Statistics UK Population Theme Advisory Board and the Advisory Board for the ESRC Centre for Population Change.

Dr Corinne Roughley is affiliated to the Department of Archaeology, University of Cambridge, Deputy Senior Tutor at Hughes Hall, and the University Panel Tutor at the Institute of Continuing Education. She studied for a BA in Archaeology and Anthropology at Cambridge (1996), followed by an MPhil in Geographic Information Systems and Remote Sensing (1997). Her PhD was on the use of GIS and visualisation techniques for understanding the Neolithic landscape of the area of Brittany around Carnac. She has a wide range of interests relating to interactions between people and landscape.