Mid-2011 and Mid-2012 Small Area Population Estimates Scotland

Population estimates by sex, age and data zone

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Main Points

- As at 30 June 2012, the total estimated population of Scotland was 5,313,600. The population estimates for the 6,505 data zones in Scotland ranged from 0 to 9,277. But only 205 data zones (3.2 per cent) had a population of less than 500 and 150 (2.3 per cent) had a population of 1,500 or more.

- In 2012, the average data zone population for Scotland was 817. The Council area with the highest average data zone population was Edinburgh, City of (879), with the lowest average in Argyll & Bute (712).

- The median age for the population of Scotland as a whole in 2012 was 41.5. But the age distribution of data zone populations varies considerably and the median ages ranged from 19 to 71 year in 2012. The peak occurred in the 40-45 age group, with 2,388 data zones having a population median age between 40 and 45.

- The population of most data zones has changed little between 2011 and 2012, but a growing number experienced more substantial changes. Between mid-2011 and mid-2012 the population of 6,374 data zones changed by less than 10 per cent, while 24 data zones decreased by 10 per cent or more and the population of 107 data zones increased by 10 per cent or more.

- In 2012, nearly 70 per cent of the population of Scotland live in settlements of 10,000 or more people.

- The population of rural areas has grown at a faster rate than non-rural areas between 2011 and 2012 (based on the 2011-2012 Scottish Government Urban Rural Classification).

1. Introduction and Background

1.1 This report summarises the Mid-2011 and the Mid-2012 Small Area Population Estimates (SAPE) for the 6,505 data zones in Scotland. Data zone population estimates, by age and sex, are updated annually by the National Records of Scotland (NRS) following the publication of the mid-year population estimates at Council and NHS Board area levels (available at Mid-2011 and Mid-2012 Population Estimates Scotland on the NRS website). The data zone estimates are consistent with the mid-year population estimates for Council areas.

1.2 The data zone population estimates in this report are based on the 2011 Census. While revisions to the 2002 to 2010 mid-year population estimates at Council and NHS Board area are available, the revised SAPE for 2002 to 2010 will not be available until Spring 2014. The 2011 Census Day population estimates are available, along with a report comparing 2001 and 2011 Census population estimates, and can be found within the Population Estimates section of the NRS website.

1.3 This report is accompanied by a full set of tables showing the mid-2011 and mid-2012 population estimates for data zones by sex and five-year age group. They are available on the Small Area Population Estimates section of the NRS website.

1.4 Data zone population estimates are an important aspect of providing information at neighbourhood level. They can be used as building blocks for a variety of different geographies that can inform planning and the provision of services at sub-Council area level. They are used as the denominator in many of the rates available on the Scottish Neighbourhood Statistics website. They are also important in a number of other applications, such as the development and maintenance of the Scottish Government's Urban Rural Classification and the Scottish Index of Multiple Deprivation (SIMD).

1.5 Section 2 of this report highlights some of the main points to emerge from the mid-2012 population estimates at data zone level, while Section 3 discusses some of the changes that have occurred between 2011 and 2012.

1.6 In addition, a number of other tables have been updated. These are the population estimates for urban/rural areas, deprivation areas, the European Union (EU) statistical geography areas, and parliamentary constituencies. The mid-2011 and mid-2012 population estimates for each of these areas, built up from data zones on a best-fit basis, have been added to the Special Area Population Estimates section of the NRS website. A summary of the main points from these tables is included in Section 4.

1.7 Data zones are the small area geography used by the Scottish Government to allow statistics to be available across a number of policy areas. The data zone geography covers the whole of Scotland. They were initially set up to nest within Council area boundaries and to have populations of between 500 and 1,000 household residents. As much as possible, data zones were set up to contain households with similar social characteristics and to take into consideration physical boundaries.

More information on data zone geography can be found on the Scottish Government website. The Scottish Government are currently consulting on the data zone boundaries and their consultation runs until 12 February 2014. The consultation paper titled Consultation regarding the redraw of Data Zones can be found on their website.

1.8 The data zone small area population estimates are derived using the cohort-component method where census-based population estimates are updated annually by 'ageing on' populations and applying information on births, deaths and migration. Background information, including a description of the methodology used to produce the small area population estimates is available within the 2001-2004 Small Area Population Estimates section of the NRS website. For the mid-2011 and mid-2012 SAPE further adjustments have been made to some data zones to take into account information we gained from the 2011 Census. A fuller review of the SAPE methodology will be undertaken when estimates are published for the new data zone boundaries.

1.9 Although the figures reported here and in the tables are given to unit level, it is not implied that the population estimates are accurate to this level of detail. The reason the figures are not rounded is to allow more accurate aggregation of data zones. The population figures are estimates that have gone through a number of stages of processing, each of which may impact on the quality of the estimates. Also, there are limitations with the administrative data sources used to produce the figures which may increase the uncertainty in the estimates. For example, the allocation of armed forces at data zone level in Scotland relies largely on the distribution from the 2011 Census. In addition, data zone population estimates are constrained to the age/sex distribution at Council area level.

1.10 Data zone population estimates are an important aspect of providing information at neighbourhood level. They can be used as building blocks for a variety of different geographies that can inform planning and the provision of services at sub-Council area level. They are used as the denominator in many of the rates available on the Scottish Neighbourhood Statistics website. They are also important in a number of other applications, such as the development and maintenance of the Scottish Government's Urban Rural Classification and the Scottish Index of Multiple Deprivation (SIMD).

1.11 Data zones are unique to Scotland and cannot be compared with small area geographies in other countries. For more information on small area population estimates for England and Wales go to the Office for National Statistics (ONS) website and for Northern Ireland go to the Northern Ireland Statistics and Research Agency (NISRA) website. A paper describing the Small Area Population Estimates across the UK (PDF document) is also available on the NISRA website.

1.12 Temporal changes in the characteristics of data zones, including population, have prompted the Scottish Government (SG) to review the data zone boundaries. A consultation has taken place and details of this along with the SG's plans for the future of data zones can be found on the Data Zone Consultation Response section of the SG website. The main impact of the proposed changes, as far as the

population estimates are concerned, is that data zones will again have roughly standard population sizes. This will be achieved by merging data zones with low populations with neighbouring ones, and splitting data zones with high populations into two or more. The changes to data zone boundaries are scheduled to come into effect in 2014.

1.13 Small area population estimates were assessed by the UK Statistics Authority (UKSA) in May 2011, along with other population and demographic statistics[1] for Scotland and were designated as National Statistics and were judged to be readily accessible, produced according to sound methods and managed impartially and objectively in the public interest.

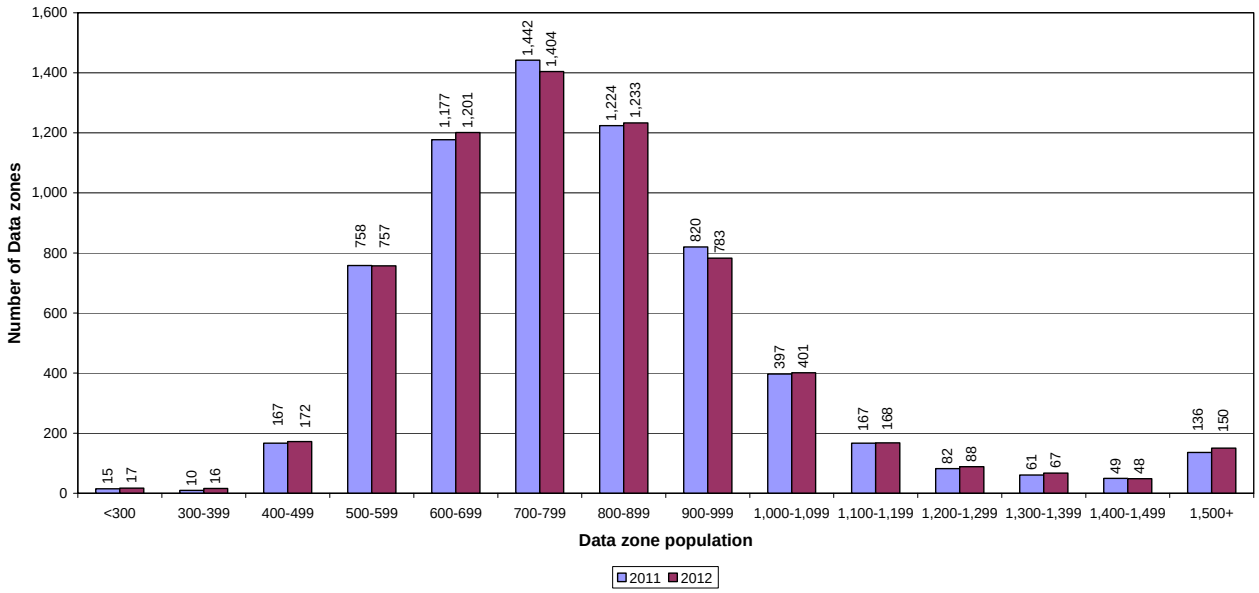
Footnote

1) UK Statistics Authority (2011). Assessment Report 113: Statistics on Population and Demography in Scotland (PDF document).

2. Data Zone Population Estimates, 2012

2.1 The overall estimated population of Scotland at 30 June 2012 was 5,313,600. The population of the 6,505 data zones in Scotland at this time ranged from 0 to 9,277 but the vast majority of the data zones (83%) had between 500 and 999 people (Figure 2.1). A total of 205 data zones had a population of fewer than 500, while 150 had a population of 1,500 or more. Some of these 150 data zones had a population size substantially greater than 1,500 and, as a result, the mean (average) population size of 817 was higher than the median[2] (midpoint) of 777.

Figure 2.1: Distribution of data zone population, 2011 and 2012



Total number of data zones = 6,505.

2.2 The 205 data zones with a population of less than 500 in 2012 were spread throughout Scotland, with no Council area having a particularly high number of data zones in this category – Glasgow City was the highest with 32 data zones (Table 2.1). Four Council areas (East Dunbartonshire, Orkney Islands, Scottish Borders and Shetland Islands) had no data zones with a population of fewer than 500.

2.3 Many of these 205 data zones, especially those with a population of fewer than 400, are in areas that have been targeted for regeneration by Community Planning Partnerships (CPPs). This is likely to account for the fact that 52 of these data zones were in the 20% most deprived areas of Scotland (Table 2.1). Because of the relatively small size of data zones, major regeneration projects and housing developments can have a big impact on the population size and could, for example, result in the demolition of most or all of the dwellings in a data zone. Three data zones in Glasgow no longer had anybody living in them in 2012.

Footnote

2) The term 'median' used in this report refers to the midpoint value of a distribution – the ((n+1)/2) highest value. For example, the median of the data zone populations in Scotland is the (6505+1)/2 = 3253rd highest population, which in 2012 was 777.

2.4 When analysed by urban rural classification, the number of data zones with a population of fewer than 500 is largely determined by the percentage of the total population living in each classification (Section 4). Most of the 205 data zones were in the urban areas, largely because these are the areas where most data zones are located.

Table 2.1: Characteristics of the 205 data zones with a population of less than 500

Location		Deprivation		Urban/Rural	
Council	**No. of datazones**	**Quintile[1]**	**No. of datazones**	**Classification[2]**	**No. of datazones**
Glasgow City	32	1 (most deprived)	52	Large urban	69
South Lanarkshire	20	2	50	Other urban	78
North Lanarkshire	14	3	36	Accessible small towns	17
Argyll & Bute	12	4	35	Remote small towns	10
Fife	10	5 (least deprived)	32	Accessible rural	18
Others	< 10 each			Remote rural	13

Footnotes

1) Quintile one consists of the 20% (1,301) most deprived data zones, quintile two the next 20% most deprived, and so on, using the 2012 Scottish Index of Multiple Deprivation.

2) 2011-2012 Urban Rural Classification.

2.5 There were 150 data zones that had a population of 1,500 or more in 2012. These data zones were spread throughout Scotland, with no Council area having a particularly high number of data zones in this category – Glasgow City was the highest at 23 (Table 2.2). Six Council areas (Argyll & Bute, East Renfrewshire, Eilean Siar, Orkney Islands, Shetland Islands and West Dunbartonshire) had no data zones with a population of 1,500 or more.

2.6 Not many of these 150 data zones were in the most deprived areas or in small towns or remote rural areas (Table 2.2). Rather more of the 150 data zones were in areas where house building had pushed up the local population in recent years. Others had a high population because of the presence of large communal establishments such as prisons, armed forces bases, or students' halls of residence. The relatively high number of accessible rural data zones (30) may have indicated the development of rural areas close to cities and larger towns.

Table 2.2: Characteristics of the 150 data zones with a population of 1,500 or more

Location		Deprivation		Urban/Rural	
Council	**No. of datazones**	**Quintile[1]**	**No. of datazones**	**Classification[2]**	**No. of datazones**
Glasgow City	23	1 (most deprived)	11	Large urban	68
Edinburgh, City of	18	2	20	Other urban	39
North Lanarkshire	16	3	47	Accessible small towns	7
Fife	11	4	41	Remote small towns	1
Aberdeenshire	11	5 (least deprived)	31	Accessible rural	30
Others	< 10 each			Remote rural	5

Footnotes

1) Quintile one consists of the 20% (1,301) most deprived data zones, quintile two the next 20% most deprived, and so on, using the 2012 Scottish Index of Multiple Deprivation.

2) 2011-2012 Urban Rural Classification.

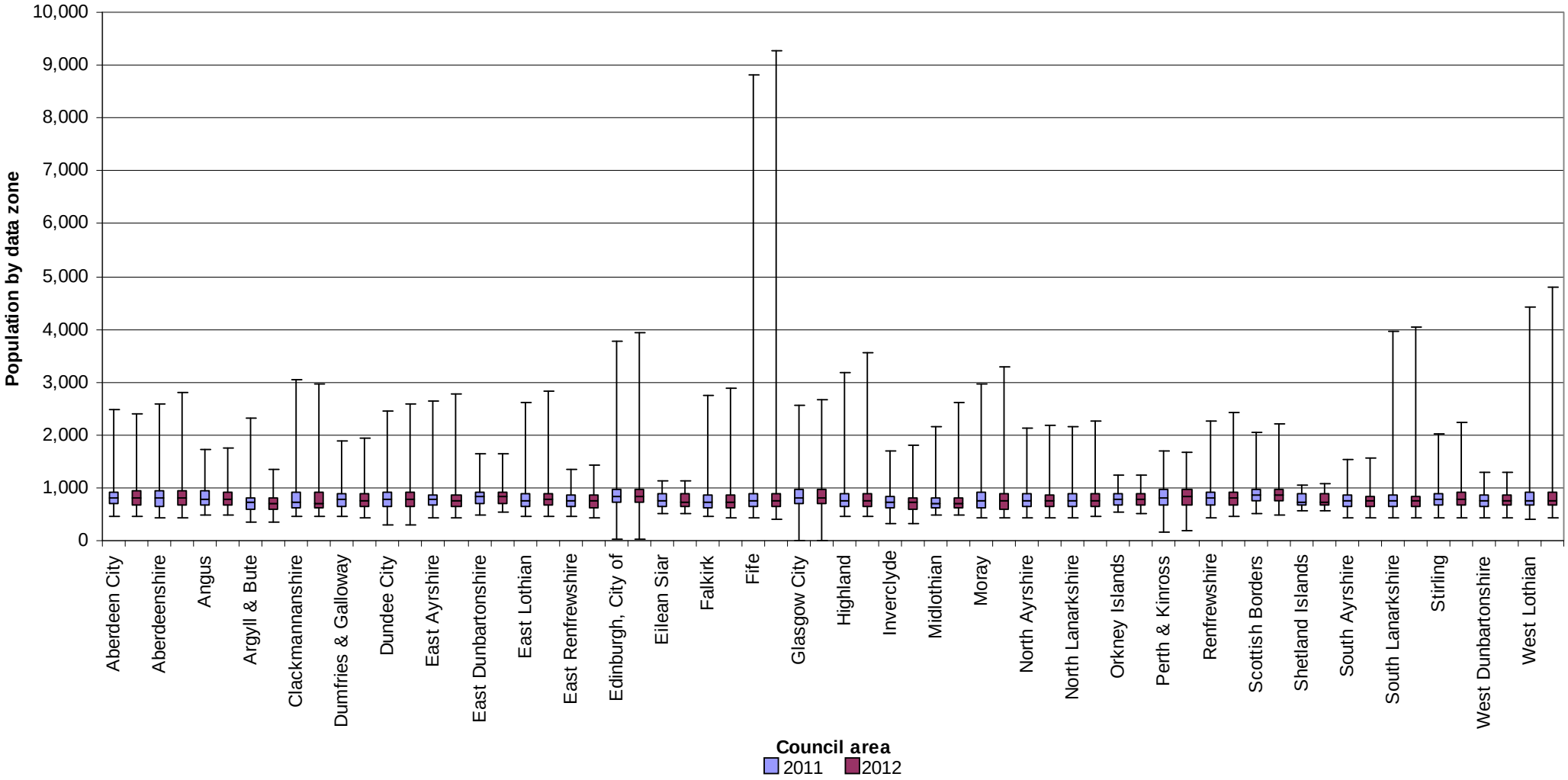
2.7 Table 2.3 shows how the characteristics of data zones differed between Council areas in 2012. The highest mean (average) data zone populations were for City of Edinburgh (879), Scottish Borders (875) and Glasgow City (857). The lowest mean populations were for Argyll & Bute (712), Inverclyde (733) and Midlothian (752). For all Council areas the median (midpoint) was lower than the mean (average). This likely indicated that most Council areas had a number of data zones with large populations that inflate the mean but have no effect on the median.

The lower quartile indicates the population below which 25% of the data zones lie for each local authority. For example, 25% of the 267 data zones in Aberdeen City had a population of 685 or less. Similarly, the upper quartile indicates the population above which 25% of the data zones lie for each local authority. So, 25% of the 267 data zones in Aberdeen City had a population of 938 or more. In other words, 50% of the data zones had a population between the lower and upper quartile values.

Table 2.3: Data zone population summary statistics by Council area, 2011 and 2012

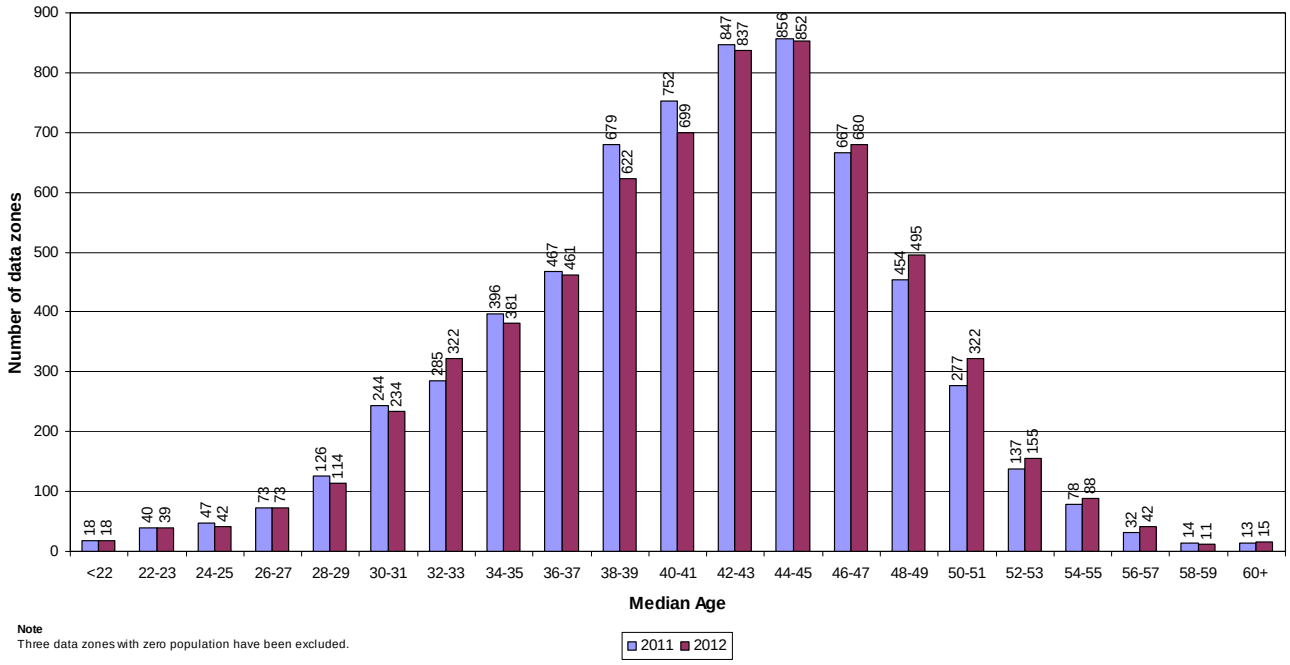
Council		Data zone, population (popn) estimates 2011							Data zone, population estimates 2012						
Name	Number of data zones	Total popn.	Minimum popn.	Maximum popn.	Mean popn.	Median popn.	Lower quartile	Upper quartile	Total popn.	Minimum popn.	Maximum popn.	Mean popn.	Median popn.	Lower quartile	Upper quartile
Aberdeen City	267	222,460	446	2,476	833	810	689	921	224,970	452	2,398	843	813	685	938
Aberdeenshire	301	253,650	436	2,597	843	801	658	945	255,540	430	2,812	849	804	661	948
Angus	142	116,200	475	1,719	818	779	675	934	116,210	473	1,743	818	784	675	905
Argyll & Bute	122	88,930	355	2,325	729	716	600	806	86,900	358	1,349	712	708	589	798
Clackmannanshire	64	51,500	449	3,048	805	723	624	911	51,280	462	2,952	801	712	611	917
Dumfries & Galloway	193	151,410	457	1,895	785	769	653	890	150,830	440	1,942	782	764	648	899
Dundee City	179	147,200	291	2,448	822	782	652	911	147,800	298	2,601	826	783	649	910
East Ayrshire	154	122,690	422	2,640	797	771	661	872	122,720	423	2,773	797	760	658	872
East Dunbartonshire	127	105,000	492	1,635	827	831	710	918	105,880	530	1,635	834	830	712	922
East Lothian	120	99,920	448	2,604	833	767	660	888	100,850	462	2,839	840	769	664	891
East Renfrewshire	120	90,810	445	1,353	757	753	636	874	91,030	438	1,419	759	752	625	871
Edinburgh, City of	549	477,940	34	3,772	871	829	725	960	482,640	14	3,938	879	832	731	965
Eilean Siar	36	27,690	514	1,125	769	752	653	877	27,560	516	1,141	766	738	648	878
Falkirk	197	156,250	452	2,741	793	732	616	875	156,800	438	2,889	796	731	615	865
Fife	453	365,300	419	8,807	806	754	635	879	366,220	397	9,277	808	757	639	878
Glasgow City	694	593,060	0	2,562	855	818	702	968	595,080	0	2,657	857	821	699	974
Highland	292	232,730	452	3,187	797	751	644	888	232,910	451	3,555	798	753	642	886
Inverclyde	110	81,220	325	1,698	738	729	615	831	80,680	336	1,805	733	729	604	820
Midlothian	112	83,450	479	2,154	745	698	624	799	84,240	484	2,619	752	694	614	804
Moray	116	93,470	442	2,961	806	764	616	911	92,910	430	3,283	801	743	602	896
North Ayrshire	179	138,090	443	2,124	771	747	652	885	137,560	440	2,194	768	747	644	869
North Lanarkshire	418	337,720	433	2,168	808	757	643	887	337,870	445	2,274	808	760	644	877
Orkney Islands	27	21,420	533	1,228	793	774	665	883	21,530	525	1,237	797	771	672	895
Perth & Kinross	175	146,850	166	1,710	839	821	686	967	147,740	178	1,682	844	832	684	971
Renfrewshire	214	174,700	441	2,256	816	804	669	925	174,310	451	2,418	815	803	664	921
Scottish Borders	130	113,880	508	2,060	876	872	763	960	113,710	489	2,205	875	861	745	957
Shetland Islands	30	23,240	566	1,047	775	731	670	900	23,210	558	1,079	774	729	669	887
South Ayrshire	147	112,980	428	1,547	769	754	639	852	112,910	438	1,558	768	760	640	849
South Lanarkshire	398	313,900	436	3,951	789	742	649	851	314,360	432	4,045	790	743	642	843
Stirling	110	90,330	426	2,011	821	789	667	903	91,020	426	2,230	827	790	670	909
West Dunbartonshire	118	90,610	438	1,300	768	762	660	865	90,340	421	1,294	766	752	662	859
West Lothian	211	175,300	411	4,414	831	762	663	908	175,990	434	4,801	834	766	663	907

Figure 2.2: Data zone population summary statistics by Council area, 2011 and 2012



2.8 As well as variations in the population size of data zones, the age distribution of data zone populations varied considerably (Figure 2.3). While the median (midpoint) age for Scotland as a whole was 41.5, the median ages at data zone level ranged from 19 to 71. There were 18 data zones with a population median age of 22 or fewer. These are areas with a high student population (living either in residential accommodation or halls of residence) or data zones with some other type of large communal establishment for young people, such as a young offenders institution. At the other end of the scale there were 15 data zones with a median age of 60 or more. These were mainly in popular retirement areas and data zones with substantial accommodation for the elderly. The peak age group was the early 40s, with 2,388 data zones having a population median age between 40 and 45.

Figure 2.3: Median age distribution of data zone population, 2011 and 2012



Note
Three data zones with zero population have been excluded.

3. Data Zone Population Change, 2011-2012

3.1 Between mid-2011 and mid-2012 the overall population of Scotland increased by 13,700 from 5,299,900 to 5,313,600. Table 3.1 shows how data zone population sizes have changed over this period. Initially, data zones were set up to have a total household population of between 500 and 1,000 wherever possible. In 2011, 192 data zones had a population of less than 500, while 892 had a population of 1,000 or more. A number of these 892 data zones contained sizeable non-household populations, such as prisons, halls of residence, and care homes. By 2012 the number of data zones with a population of less than 500 had risen to 205, while 922 data zones had a population of 1,000 or more.

Table 3.1: Data zones within broad population bands, 2011-2012

	< 300		300-499		500-999		1,000-1,499		1,500 +	
	No.	%	No.	%	No.	%	No.	%	No.	%
2011	15	0.2	177	2.7	5,421	83.3	756	11.6	136	2.1
2012	17	0.3	188	2.9	5,378	82.7	772	11.9	150	2.3

Note
Total number of data zones each year = 6,505.

3.2 Table 3.2 further illustrates the 'population drift' noted above. The slight increase in the mean (average) data zone population from 815 in 2011 to 817 in 2012 reflects the growing population of Scotland as a whole. However, the median (midpoint) has remained constant over most of this period. The percentiles and quartiles show the population below which a particular percentage of the population lies[3]. In 2012, for example, 5% of the data zones in Scotland had a population of 521 or less. The spread of the lower and upper quartiles remained constant between 2011 to 2012[4] of 247, whereas the spread from the 5th to the 95th percentile had increased from 676 in 2011 to 707 in 2012. These summary statistics indicate that, while the majority of data zones changed little over the year, there is a growing number that experienced substantial changes.

Table 3.2: Data zone population (popn) summary statistics, 2011-2012

Year	Minimum popn.	Maximum popn.	Mean popn.	Median popn.	5th percentile	Lower quartile	Upper quartile	95th percentile
2011	0	8,807	815	777	525	661	908	1,201
2012	0	9,277	817	777	521	660	907	1,228

3.3 Table 3.3 provides further information on the nature of the changes at data zone level between 2011 and 2012. Although the population of Scotland increased overall between 2011 and 2012, more data zones had a decrease in population than an increase in population. In this period the population of 3,392 (52.1%) decreased, while 3,113 data zones (47.9%) either increased or had the same population in these years.

3.4 Most of the big changes were in data zones where the population increased. A total of 107 data zones had population increases of 10% or more, compared with 24 data zones which had a comparable population decrease. By contrast, most of the small changes were in data zones where the population decreased.

Footnotes
3) The lower quartile is the same as the 25th percentile and the upper quartile is the same as the 75th percentile.
4) The range (called the inter-quartile range) is 908 – 661 = 247 for 2011, and 907 – 660 = 247 for 2012.

A total of 6,374 data zones had a population change of less than 10%, of which 3,368 data zones had a population decrease, compared with 2,878 which had an increase (the other 128 had the same population in 2012 as in 2011). Many of the small decreases may be related to the declining average household size in recent years, with more people living alone or in smaller households[5].

Table 3.3: Population change summary, 2011-2012

Change in population 2011-2012	Number of data zones	Percentage of data zones
Total increase	**2,985**	**45.9**
50% or more increase	2	0.0
20% to <50% increase	16	0.2
10% to <20% increase	89	1.4
5% to <10% increase	282	4.3
<5% increase	2,596	39.9
No change	**128**	**2.0**
< 5% decrease	3,187	49.0
5% to <10% decrease	181	2.8
10% to <20% decrease	16	0.2
20% to <50% decrease	7	0.1
50% to 100% decrease	1	0.0
Total decrease	**3,392**	**52.1**

3.5 Between 2011 and 2012 the population of two data zones increased by 50% or more (Table 3.4). Data zone S01001474 saw the re-opening of Low Moss prison in 2012. S01003126 saw an increase in the number of dwellings.

Table 3.4: Data zones with largest population increase, 2011-2012

Data zone	Council	2011 population	2012 population	% change
S01003126	Glasgow City	154	274	*75%*
S01001474	East Dunbartonshire	956	1,635	*70%*

3.6 Between 2011 and 2012 the population of one data zone decreased by 50% or more (Table 3.5). This data zone is in an area targeted for regeneration. There was a corresponding decrease in the number of dwellings in the data zone due to demolition work as well as a substantial proportion of dwellings being no longer occupied in 2012.

Table 3.5: Data zones with population decrease of 50% or more, 2011-2012

Data zone	Council	2011 population	2012 population	% change
S01002296	Edinburgh, City of	34	14	*58%*

Footnote

5) National Records of Scotland publication Estimates of Households and Dwellings in Scotland, 2011 which is available on their website.

4. Other Small Area Population Estimates

4.1 In addition to data zone population estimates, National Records of Scotland (NRS) also publishes data zone-based population estimates for other geographies:

- Scottish Government urban rural classification.
- Nomenclature of Units for Territorial Statistics (NUTS) – the statistical geography of the European Union.
- Scottish Index of Multiple Deprivation (SIMD) deciles.
- Scottish Parliamentary Constituencies (SPC).
- United Kingdom Parliamentary Constituencies (UKPC).

4.2 Mid-year population estimates for these geographies based on the 2011 Census for 2011 and 2012 and earlier years are available in the Special Area Population Estimates section of the NRS website. Estimates for earlier years are also available but they are based on the 2001 Census. They are produced by aggregating the data zone population estimates, using the appropriate lookup table. The data zone lookup tables can be found in the Scottish Neighbourhood Statistics (SNS) reference section of the Scottish Government website. Data zones do not always fit these other boundaries exactly. In the case where a data zone boundary crosses that of another geography, the data zone is allocated to the area that contains the population-weighted centroid of the data zone. An evaluation of non-standard geography population estimates[6] was carried out to assess population estimates built up from data zones. This showed that, for certain higher-level geographies, population estimates built up from data zones gave good results.

4.3 The population estimates for earlier years 2001 to 2011 (unrevised) for these areas, along with those for a number of other geographies, are also available on the SNS website. Once we have revised the 2002 to 2010 Small Area Population Estimates (SAPE) and special area population estimate to have a timeseries of constant estimates these will be uploaded on to the Scottish Neighbourhood Statistics website.

Urban Rural Classification Populations

4.4 The Scottish Government Urban Rural Classification defines urban and rural areas across Scotland. The classification is based on population and accessibility (using drive-time analysis to identify accessible and remote areas). The main classifications are the 6-fold and 8-fold classifications which distinguish between urban, rural and remote areas using six and eight categories, respectively. Each data zone is assigned to one of the categories. The classification is updated every two years and the population estimates published on our website relate to the 2011-2012 classification. More background information on the urban rural classification is available on the Scottish Government's Urban Rural Classification website.

4.5 Population Estimates by Urban Rural Classification for the 6-fold and 8-fold classifications are available on the NRS website. The mid-2012 population estimates, based on the 2011-2012 6-fold classification, show that nearly 70% of the population of Scotland lived in settlements of 10,000 or more people (the 'large urban' and 'other urban' areas), while nearly one million people lived in the 'accessible' and 'remote' rural areas (Table 4.1).

Footnote

6) Further details available within the Evaluation of Non Standard Geography Population Estimates publication on the NRS website.

Table 4.1: Population estimates by 6-fold urban rural classification, 2011 and 2012

Classification	2011 population	2011 population (%)	2012 population	2012 population (%)
Large urban areas	2,053,577	*38.7*	2,062,877	*38.8*
Other urban areas	1,614,586	*30.5*	1,615,398	*30.4*
Accessible small towns	456,994	*8.6*	456,662	*8.6*
Remote small towns	193,239	*3.6*	192,289	*3.6*
Accessible rural areas	637,731	*12.0*	642,653	*12.1*
Remote rural areas	343,773	*6.5*	343,721	*6.5*

4.6 Based on the mid-2012 population estimates, areas defined as 'accessible rural' in the 2011-2012 classification grew at a faster rate than the other areas between 2011 and 2012. The population of large urban, other urban and accessible rural areas all had an increase between 2011 and 2012. There was a slight decrease in the population of accessible small towns, remote small towns and remote rural areas during this period.

4.7 The definition of urban and rural areas is specific to Scotland and population estimates for these areas cannot be compared with similar estimates for other countries. Urban and rural population estimates can be used to support the work of various national and local authority government departments, such as the Rural Development Council[7].

Nomenclature of Units for Territorial Statistics (NUTS) Populations

4.8 The European Union Nomenclature of Units for Territorial Statistics (NUTS) Regulation, enacted in June 2003, formalised the statistical geography of the European Union (EU). The United Kingdom NUTS structure was established in 1998 following an extensive consultation exercise. Some changes were made to the structure following a review in 2006. The purpose of the NUTS regional structure is to provide a single uniform breakdown of territorial units for the production of regional statistics for the EU. The NUTS regional structure is used for various policy purposes, the most important of which is for the allocation of Objective 1 structural funding whereby if any NUTS2 region has a Gross Domestic Product (GDP) per head less than 75% of the EU average it is entitled to financial support.

4.9 There are three levels of NUTS geography. It is a hierarchical structure - Scotland is one of the NUTS1 areas of the UK. Within Scotland there are 4 NUTS2 areas and 23 NUTS3 areas. The previously named NUTS4 areas were renamed Local Administrative Units (LAU1) but were not included in the regulation – there are 41 LAU1 areas in Scotland. Maps of the NUTS/LAU areas of Scotland are included in the Boundary Mapping section of the Scottish Government website.

4.10 NUTS Population Estimates by single year of age and sex for NUTS2, NUTS3 and LAU1 areas are provided on the NRS website. Table 4.2 shows the population breakdown of the NUTS2 areas of Scotland for 2011 and 2012.

Footnote

7) Refer to, for example, 'Socio-economic briefing on rural Scotland: Demography' on the Scottish Government website.

Table 4.2: Population estimates by Nomenclature of Units for Territorial Statistics (NUTS2) area, 2011 and 2012

NUTS2 area	2011 population	2011 population (%)	2012 population	2012 population (%)
Eastern Scotland	2,024,120	*38.2*	2,034,500	*38.3*
South Western Scotland	2,332,627	*44.0*	2,332,487	*43.9*
North Eastern Scotland	476,110	*9.0*	480,510	*9.0*
Highlands and Islands	467,043	*8.8*	466,103	*8.8*

4.11 Between 2011 and 2012, the populations of the NUTS2 areas Eastern Scotland and North Eastern Scotland saw an increase in the population. Where as South Western Scotland and Highlands and Islands saw a decrease over the same period.

4.12 These population estimates were derived by aggregating data zone estimates. Many NUTS areas are equivalent to Council areas or groups of Council areas, so NUTS population estimates will be consistent with those for Council areas. However, some NUTS areas (those in Argyll & Bute, Highland, and North Ayrshire Council areas) do not correspond to Council areas. In these cases data zones have been allocated to NUTS areas on a best-fit basis.

Scottish Index of Multiple Deprivation (SIMD) Decile Populations

4.13 The SIMD ranks each of the 6,505 data zones in Scotland from one (most deprived) to 6,505 (least deprived). The index is updated every three years. The most recent was published in 2012 and is known as SIMD 2012. More information on SIMD 2012 and earlier versions is available on the SIMD section of the Scottish Government website.

4.14 Population Estimates by SIMD 2012 are available on the NRS website, by single year of age and sex for SIMD 2012 deciles, where each decile has 10% of the data zones in Scotland (either 650 or 651 data zones) grouped according to ascending SIMD ranking[8]. Table 4.3 shows the SIMD 2012 decile population estimates for 2011 and 2012.

Footnote

8) Decile 1 has the 651 most deprived data zones, decile 2 the next 650 data zones according to deprivation ranking, and so on, up to decile 10 which has the 650 least deprived data zones.

Table 4.3: Population estimates by Scottish Index of Multiple Deprivation (SIMD) 2012 decile, 2011 and 2012

SIMD decile[1]	2011 population	2011 population (%)	2012 population	2012 population (%)
1 (Most deprived 10%)	515,330	*9.7*	515,449	*9.7*
2	509,926	*9.6*	509,124	*9.6*
3	509,926	*9.6*	509,278	*9.6*
4	527,805	*10.0*	527,463	*9.9*
5	532,655	*10.1*	534,503	*10.1*
6	543,669	*10.3*	546,609	*10.3*
7	549,610	*10.4*	553,314	*10.4*
8	548,647	*10.4*	551,665	*10.4*
9	547,799	*10.3*	550,524	*10.4*
10 (Least deprived 10%)	514,533	*9.7*	515,671	*9.7*

Footnote
1) Each decile contains 10% (650 or 651) of the data zones in Scotland.

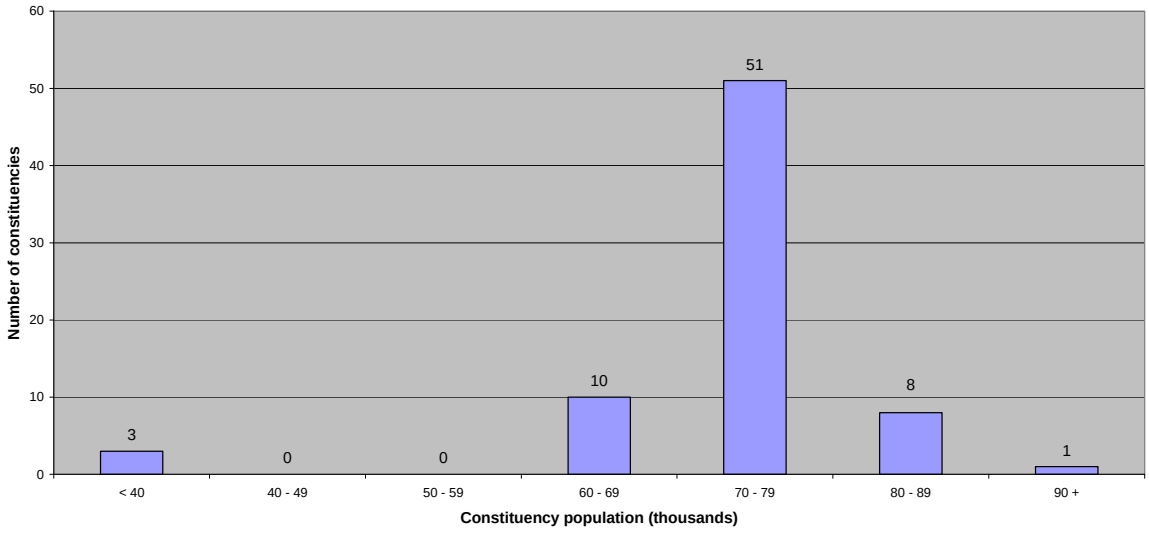
Scottish Parliamentary Constituency Populations

4.15 The Members of the Scottish Parliament (MSPs) at Holyrood represent 73 constituencies. The constituency boundaries were re-drawn for the 2011 election. The population estimates reported here relate to the 2011 boundaries.

4.16 Constituency population estimates were derived by aggregating data zone population estimates. However, data zones do not always fit the constituency boundaries exactly and those that cross a constituency boundary are allocated to the constituency that contains the population-weighted centroid of the data zone.

4.17 Scottish Parliamentary Constituency Population Estimates by single year of age and sex are available on the NRS website. The constituency population estimates for 2012 range from 21,530 (Orkney Islands) to 91,515 (Linlithgow). Figure 4.1 shows the distribution of constituency populations, with the majority between 70,000 and 80,000. The proportion of people aged 18 and over[9] ranged from 76.8% in Almond Valley to 90.5% in Glasgow Kelvin.

Figure 4.1: Population frequency count by 2011 Scottish Parliamentary Constituency, 2012



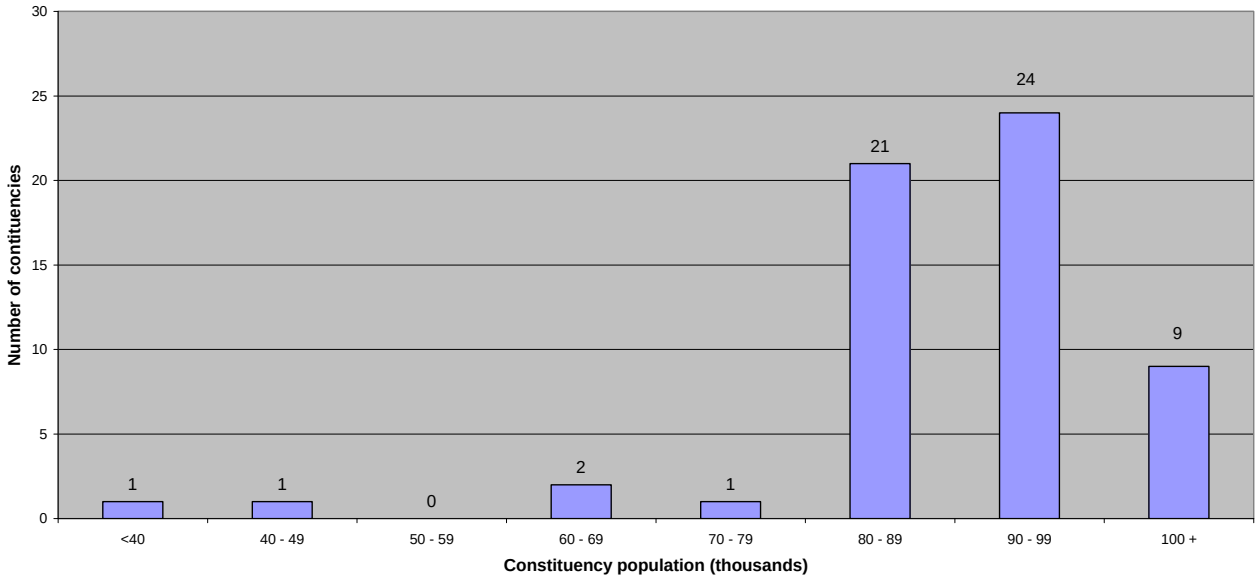
Footnote
9) Not necessarily the same as those registered to vote in the constituency, but a reasonable indicator in most cases.

UK Parliamentary Constituency Populations

4.18 The Members of Parliament (MPs) at Westminster represent 59 Scottish constituencies. The population estimates reported here relate to the boundaries used in the 2010 general election. Constituency population estimates were derived by aggregating data zone population estimates. However, data zones do not always fit the constituency boundaries exactly and those that cross a constituency boundary are allocated to the constituency that contains the population-weighted centroid of the data zone. Previous research showed that the data zone to constituency fit was good in all constituencies except Glasgow North and Glasgow North West. Based on this research an adjustment of +3.7% has been made to the population of Glasgow North each year, spread equally across the age/sex distribution. A corresponding adjustment of -3.7% has been made to Glasgow North West.

4.19 UK Parliamentary Constituency Population Estimates by single year of age and sex are available on the NRS website. The constituency population estimates for 2012 ranged from 27,560 (Na h-Eileanan an Iar) to 113,030 (Linlithgow and East Falkirk). Figure 4.2 shows the distribution of constituency populations, with the majority between 80,000 and 100,000. The proportion of people aged 18 and over[10] ranged from 77.2% in Livingston to 86.3% in Glasgow North.

Figure 4.2: Population frequency count by UK Parliamentary Constituency, 2012



4.20 Population estimates for constituencies in England and Wales are produced by the Office for National Statistics (ONS) using a similar method – but using a postcode best-fit methodology rather than a data zone best-fit methodology.

4.21 The constituency population estimates for both the Holyrood and Westminster parliaments are useful in providing an age and sex breakdown of the people living in each constituency.

Footnote

10) Not necessarily the same as those registered to vote in the constituency, but a reasonable indicator in most cases.

5. Notes and Definitions

This section gives brief definitions of statistical and other terms used in this report.

Mean
The average of a group of values. The sum of the values divided by the number of values in the group.

Median
The midpoint of a group of values which have been arranged in ascending or descending order. Fifty per cent of the values will be less than or equal to the median, the remainder will be greater than the median. (The split may not be exactly 50/50, depending on how many values in the group have the median value.)

Quartile
Similar to median, except that quartiles split the values into four equal groups instead of two. For example, the first quartile has the first 25% of the values. The first quartile is usually called the lower quartile; the second quartile is the same as the median; and the third quartile is usually called the upper quartile.

Quintile
Similar to median, except that quintiles split the values into five equal groups instead of two. For example, the first quintile has the first 20% of the values.

Decile
Similar to median, except that deciles split the values into ten equal groups instead of two. For example, the first decile has the first 10% of the values.

Percentile
Similar to median, except that percentiles split the values into 100 equal groups instead of two. For example, the first percentile has the first 1% of the values.

Best-fit
Aggregating data zones to a higher-level geography does not always give an exact match. In these cases, data zones are allocated on a 'best-fit' basis to give the best possible match. The Geography Best Fit Matrix on the Scottish Government (SG) website shows how well the boundaries for different geographies (including data zones) match, while the paper 'Evaluation of Non Standard Geography Population Estimates' on the National Records of Scotland website assesses the accuracy of population estimates built up from data zones.

Population-weighted centroid
This identifies the centre of a data zone by taking into account the size and location of the population, as well as the physical characteristics of the data zone. More information is available in the paper 'Data Zone Centroids Methodology' on the SG website.

Data zone lookup tables
The data zone lookup tables used to derive the population estimates for the areas in Section 4 can be found in the reference section of the Scottish Neighbourhood Statistics website. The text file 'Data Zone Lookup' gives geographic information for each data zone, while the Excel workbook 'Code to Name Lookup' gives the full names of the codes held in the 'Data Zone Lookup' file.

Urban Rural Classification

The 6-fold Urban Rural classification categories are:

1. Large urban areas	Settlements of over 125,000 people.
2. Other urban areas	Settlements of 10,000 to 125,000 people.
3. Accessible small towns	Settlements of between 3,000 and 10,000 people and within 30 minutes drive of a settlement of 10,000 or more.
4. Remote small towns	Settlements of between 3,000 and 10,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.
5. Accessible rural areas	Settlements of less than 3,000 people and within 30 minutes drive of a settlement of 10,000 or more.
6. Remote rural areas	Settlements of less than 3,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.

The 8-fold Urban Rural classification categories are:

1. Large urban areas	Settlements of over 125,000 people.
2. Other urban areas	Settlements of 10,000 to 125,000 people.
3. Accessible small towns	Settlements of between 3,000 and 10,000 people and within 30 minutes drive of a settlement of 10,000 or more.
4. Remote small towns*	Settlements of between 3,000 and 10,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more.
5. Very remote small towns	Settlements of between 3,000 and 10,000 people and with a drive time of over 60 minutes to a settlement of 10,000 or more.
6. Accessible rural areas	Settlements of less than 3,000 people and within 30 minutes drive of a settlement of 10,000 or more.
7. Remote rural areas*	Settlements of less than 3,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more.
8. Very remote rural areas	Settlements of less than 3,000 people and with a drive time of over 60 minutes to a settlement of 10,000 or more.

*The Remote Small Towns and Remote Rural categories in the 8-fold classification should not be confused with the similarly labelled categories in the 6-fold classification.

6. Notes on statistical publications

National Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as National Statistics, in line with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics (available on the UKSA website).

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

National Records of Scotland

We, the National Records of Scotland, are a non-ministerial department of the devolved Scottish Administration. Our aim is to provide relevant and reliable information, analysis and advice that meets the needs of government, business and the people of Scotland. We do this as follows:

- Preserving the past – We look after Scotland's national archives so that they are available for current and future generations, and we make available important information for family history.
- Recording the present – At our network of local offices, we register births, marriages, civil partnerships, deaths, divorces and adoptions in Scotland.
- Informing the future – We are responsible for the Census of Population in Scotland which we use, with other sources of information, to produce statistics on the population and households.

You can get other detailed statistics that we have produced from the Statistics section of our website. Statistics from the 2001 Census are on Scotland's Census Results On-Line (SCROL) website and the 2011 Census results are held on the Scotland's Census website.

We also provide information about future publications on our website. If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government ScotStat website.

Enquiries and suggestions

Please contact our Customer Services if you need any further information.
Email: customer@gro-scotland.gsi.gov.uk

If you have comments or suggestions that would help us improve our standards of service, please contact:

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7. Related organisations

Organisation	Contact
The Scottish Government (SG) forms the bulk of the devolved Scottish Administration. The aim of the statistical service in the SG is to provide relevant and reliable statistical information, analysis and advice that meets the needs of government, business and the people of Scotland.	Office of the Chief Statistician Scottish Government 3WR, St Andrews House Edinburgh EH1 3DG Phone: 0131 244 0442 Email: statistics.enquiries@scotland.gsi.gov.uk Website: www.scotland.gov.uk/Topics/Statistics
The Office for National Statistics (ONS) is responsible for producing a wide range of economic and social statistics. It also carries out the Census of Population for England and Wales	Customer Contact Centre Office for National Statistics Room 1.101 Government Buildings Cardiff Road Newport NP10 8XG Phone: 0845 601 3034 Minicom: 01633 815044 Email: info@statistics.gsi.gov.uk Website: www.ons.gov.uk/
The Northern Ireland Statistics and Research Agency (NISRA) is Northern Ireland's official statistics organisation. The agency is also responsible for registering births, marriages, adoptions and deaths in Northern Ireland, and the Census of Population.	Northern Ireland Statistics and Research Agency McAuley House 2-14 Castle Street Belfast BT1 1SA Phone: 028 9034 8100 Email: info.nisra@dfpni.gov.uk Website: www.nisra.gov.uk