

Household Analysis Review Group (HARG)

Impact of the population projections methodology changes on household projections (2012-based)

1. Background – changes to the sub-national population projections methodology

For the [2014-based sub-national population projections](#), National Records of Scotland (NRS) made some changes to the methodology.

In early 2015, NRS commissioned academics to review the population projections methodology and make recommendations on the changes. The primary recommendation was to move from a single-region net migration assumption to a multi-region rates based approach.

Analysis of the change in methodology can be found in the [user groups section](#) of the National Records of Scotland website.

These changes do not affect the overall population figures for Scotland, or the age/sex breakdowns for Scotland. However, they do affect the total figures, and the age/sex breakdowns, for individual council areas. This will therefore affect the household projections for individual council areas.

2. Implications for the household projections

In order to assess the implications of the population projections changes for the household projections, we have re-run the 2012-based household projections, using the 2012-based population projections which were produced as part of the testing of the new population projections methodology. We kept all other components of the household projections the same (this includes headship rates, communal establishments rates, household estimates and survey data).

Note that NRS is not planning to replace the 2012-based household projections which were published two years ago, but the 2014-based household projections (described in the paper HARG 2016(2)) will incorporate the 2014-based population projections, which use the new methodology.

The impacts of the changes in methodology on the 2012-based projections are shown in [Table 1](#) and [Figure 1](#) (Figure 1 illustrates the figures from the last two columns of Table 1). This shows the difference between the figures for 2037 (the last year of the 25-year projections), using the published population projections and the population projections using the new methodology. It is important to note that differences can seem larger than they are as the scale in Figure 1 is quite small.

The relationship between the population and household projections is clear – the household projections have changed by a similar amount to the population projections. The difference in 2037 varies from a seven per cent decrease in household projections in 2037 in Aberdeen City, to a ten per cent increase in Argyll and Bute.

However, it is also clear that there is some variation in the impact of the change in different areas – the same amount of overall population growth can lead to different amounts of household growth in different areas. This is due to differences in the age structure and household types in different areas. Population change in an area with a lot

of one and two adults households will have a greater impact on overall household numbers than population change in an area with a lot of larger households.

For example, [Figure 2](#) illustrates the difference between the original and new 2012-based projections figures for 2037, by age group, for Inverclyde. Young adults are less likely to 'head' a household – they are more likely to live in 3+ adults households, live with their parents, or in communal establishments such as student halls of residence. Therefore, increasing the population of the younger age groups increases the number of households, but by a relatively small amount. Adults aged 40 and over are more likely to 'head' a household, so increasing the population in these age groups leads to a bigger increase in the number of households. This is why the same overall population change can lead to different levels of household change in different areas.

In the 2014-based household projections publication, we will describe the changes to the population projections methodology, and how this affects the household projections.

HARG members are asked for any comments on the implications of the changes in the population projections methodology, for the household projections.

NRS: Household Estimates and Projections Branch

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Table 1: Comparison of the population and number of households in the 2012-based projections, using the original and new population projections method

Council area	Household projections					Population projections percentage difference
	2012	Original 2037	New 2037	Difference (New - original), 2037	Percentage difference	
Aberdeen City	103,934	140,380	131,084	-9,296	-7%	-7%
Aberdeenshire	106,018	128,982	135,292	6,310	5%	4%
Angus	52,109	55,098	56,530	1,432	3%	2%
Argyll & Bute	40,514	38,001	41,765	3,764	10%	12%
Clackmannanshire	22,881	24,036	24,698	662	3%	3%
Dumfries & Galloway	68,364	69,264	69,921	657	1%	1%
Dundee City	69,263	85,065	80,871	-4,195	-5%	-5%
East Ayrshire	54,143	58,364	59,140	776	1%	2%
East Dunbartonshire	43,778	44,509	47,684	3,174	7%	8%
East Lothian	43,429	54,944	54,991	47	0%	-2%
East Renfrewshire	37,575	42,498	43,943	1,445	3%	4%
Edinburgh, City of	224,875	313,033	309,028	-4,005	-1%	-1%
Eilean Siar	12,749	13,545	13,246	-299	-2%	-1%
Falkirk	69,230	80,209	81,833	1,624	2%	2%
Fife	161,845	182,547	185,554	3,007	2%	2%
Glasgow City	286,134	354,006	337,635	-16,371	-5%	-5%
Highland	103,317	116,513	114,840	-1,674	-1%	-1%
Inverclyde	37,299	33,666	34,554	888	3%	5%
Midlothian	35,540	43,312	44,798	1,485	3%	3%
Moray	40,492	43,245	45,331	2,086	5%	5%
North Ayrshire	62,519	61,758	64,113	2,354	4%	5%
North Lanarkshire	146,905	162,158	162,313	155	0%	0%
Orkney Islands	9,859	11,534	11,545	10	0%	1%
Perth & Kinross	65,194	82,869	80,482	-2,386	-3%	-5%
Renfrewshire	80,924	89,264	91,967	2,703	3%	3%
Scottish Borders	52,671	56,575	58,509	1,934	3%	4%
Shetland Islands	10,076	12,043	11,584	-459	-4%	-5%
South Ayrshire	51,515	54,104	54,983	880	2%	1%
South Lanarkshire	140,225	155,059	158,693	3,634	2%	2%
Stirling	37,876	47,162	44,668	-2,493	-5%	-5%
West Dunbartonshire	42,106	42,543	43,650	1,107	3%	3%
West Lothian	73,847	86,487	88,450	1,963	2%	1%
Scotland	2,387,207	2,782,774	2,783,692	918	0%	0%

Figure 1: Impact of the new population projections method on the 2012-based population and household projections for 2037

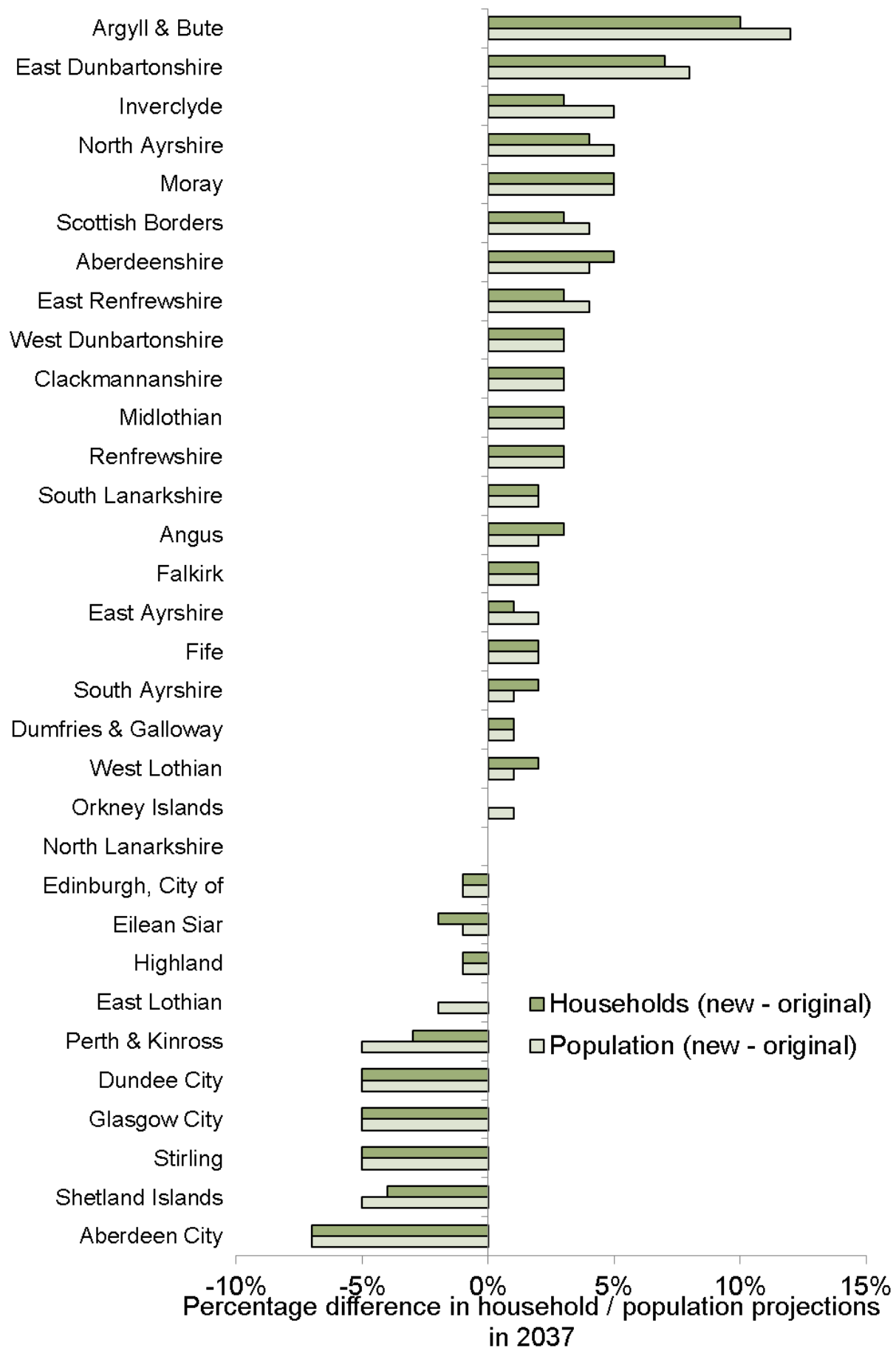


Figure 2: Impact of the new population projections method on the 2012-based population and household projections for 2037, Inverclyde

