

## Household Analysis Review Group: 2006-based high migration variant household projections

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**The results presented in this paper are provisional.  
They are likely to differ from the final household projections published.  
Please treat these figures as ‘restricted’ until after publication in May.**

### 1. Purpose

1.1 GROS is planning to publish the 2006-based household projections for Scotland in May. Previous publications have focused on the principal projection, but for the first time we are planning to include a high migration variant projection at sub-national level. This paper aims to describe how the variant projection is derived and the initial analysis of the provisional figures.

**1.2 HARG members are asked to note the initial findings and state whether they agree that the high migration variant projection should be included in the household projection publication.**

### 2. Background

Variant projections provide a broad indication of the sensitivity of the household projections to the demographic assumptions. The principal household projections are based on the principal population projections produced by GROS which use assumptions about fertility, mortality and migration which are thought most likely to occur over the next 25 years. Variant projections are based on alternative assumptions of future fertility, mortality and migration.

The high migration variant projection uses the same assumptions about fertility and mortality as the principal projection but assumes higher levels of net in-migration to Scotland<sup>1</sup>. The migration assumptions for the principal and high migration variant at the Scotland level can be seen in **Table 1**. The migration assumptions by council area can be found in **Annex A and Annex B**.

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<sup>1</sup> Only moves to and from the rest of the UK and overseas are affected. The number of people moving between council areas within Scotland does not change from the principal projection. Thus the projections for council areas where the population is most affected by migration within Scotland will not change as much as those where international migration has a greater effect.

The high migration variant projection shows Scotland's population rising from 5.12 million in 2006 to 5.56 million in 2031. This compares to a population of 5.37 million in 2031 under the principal projection.

**Table 1: Net migration assumptions for the principal and high migration variant projections for Scotland.**

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013 and beyond
Principal projection	20,500	16,000	14,000	11,500	10,500	9,500	8,500
High migration variant projection	24,750	24,500	22,500	20,000	19,000	18,000	17,000

**Source:** Population Projections Scotland (2006-based) Annex D and E.

[www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html](http://www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html)

The high migration variant household projection is calculated by replacing the principal population projections with the high migration population projections and keeping all other inputs (communal establishment rates, headship rates, household estimates) unchanged.

### 3. Results of the provisional variant household projections

The high migration variant projection shows the number of households in Scotland increasing from 2.3 million in 2006 to 2.8 million in 2031. This compares to 2.7 million households in 2031 under the principal projection. **Chart 1** illustrates this along with the projected increase in population for the principal and variant projections.

The average annual increase in the number of households is under the high migration variant projection compared to under the principal projection.

**Table 2** shows the projected number of households for each council area under both the principal and high migration variant for selected years as well as the percentage difference between the projections in 2031. The high migration variant has the biggest impact on Aberdeen City (where the number of households is 10 per cent higher than under the principal projection) and Edinburgh (8 per cent higher). The population in these areas has increased the most under the high migration variant projection since they are areas that gain the most migrants from outwith Scotland.

**Chart 2** compares the percentage change in households from 2006 to 2031 under the principal and high migration variant projections. The impact the high migration variant has on different council areas can again be seen here with Aberdeen City and Edinburgh having the biggest difference between the two sets of projections.

**Chart 3** shows the projected number of households in 2031, under the principal and high migration variant projection, by household type. All household types show an increase in the number of households under the variant projection with the 2+ adults with children category showing the greatest percentage difference (7 per cent) between the two projections in 2031.

**Chart 4** shows the projected number of households in 2031, under the principal and high migration variant projection, by age of head of household. All age groups have shown an increase in the number of households under the variant projection with the 30-44 age group showing the greatest percentage difference (8 per cent) between the two projections in 2031.

#### **4. Next steps**

GROS will continue to carry out checks on the provisional 2006-based high migration variant projections. Depending on the outcome of this meeting, GROS will include the variant projections in the draft household projections publication, which will be sent to HARG members for comment before the final publication is produced.

**HARG members are asked to note the initial findings and state whether they agree that the high migration variant projection should be included in the household projection publication.**

Anneli Lyon  
GROS: Household estimates and projections branch  
March 2006

## Annex A

## Migration assumptions for principal projection by council and NHS board area

(persons per annum)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012-13 and beyond
<b>SCOTLAND</b>	<b>20,500</b>	<b>16,000</b>	<b>14,000</b>	<b>11,500</b>	<b>10,500</b>	<b>9,500</b>	<b>8,500</b>
<b>Council areas</b>							
Aberdeen City	850	250	-50	-400	-550	-650	-800
Aberdeenshire	2,300	2,000	1,850	1,650	1,600	1,500	1,450
Angus	650	600	550	500	500	450	450
Argyll & Bute	150	150	200	200	250	250	250
Clackmannanshire	200	150	150	150	150	150	150
Dumfries & Galloway	200	250	300	350	350	400	400
Dundee City	-50	-200	-300	-400	-400	-450	-500
East Ayrshire	0	0	0	-50	-50	-50	-50
East Dunbartonshire	-500	-500	-500	-550	-550	-550	-550
East Lothian	950	800	700	650	600	600	550
East Renfrewshire	-350	-250	-200	-150	-150	-100	-100
Edinburgh, City of	4,600	3,600	3,200	2,650	2,400	2,150	1,950
Eilean Siar	100	100	100	100	100	100	100
Falkirk	500	500	500	500	500	500	500
Fife	1,650	1,600	1,550	1,550	1,500	1,500	1,550
Glasgow City	1,900	700	200	-500	-800	-1,050	-1,300
Highland	1,700	1,500	1,400	1,350	1,300	1,250	1,200
Inverclyde	-350	-350	-350	-300	-300	-300	-300
Midlothian	50	-50	-100	-150	-200	-250	-250
Moray	400	250	200	100	50	50	0
North Ayrshire	-200	-50	-50	50	50	100	100
North Lanarkshire	0	0	0	50	50	50	50
Orkney Islands	200	200	150	150	150	150	150
Perth & Kinross	1,850	1,600	1,500	1,400	1,350	1,300	1,250
Renfrewshire	-300	-350	-350	-400	-450	-450	-500
Scottish Borders	750	800	800	800	850	850	850
Shetland Islands	-150	-100	-100	-100	-50	-50	-50
South Ayrshire	300	300	300	300	300	300	300
South Lanarkshire	1,250	1,150	1,150	1,100	1,100	1,050	1,050
Stirling	800	600	500	400	350	300	250
West Dunbartonshire	-100	-200	-200	-250	-250	-300	-300
West Lothian	1,150	950	900	750	750	700	650

Source: Population Projections Scotland (2006-based) Annex D.

[www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html](http://www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html)

## Annex B

## Migration assumptions for high migration variant by council and NHS board area

(persons per annum)

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 and beyond
<b>SCOTLAND</b>	<b>24,750</b>	<b>24,500</b>	<b>22,500</b>	<b>20,000</b>	<b>19,000</b>	<b>18,000</b>	<b>17,000</b>
<b>Council areas</b>							
Aberdeen City	1,200	1,150	800	400	200	50	-150
Aberdeenshire	2,500	2,450	2,300	2,100	2,000	1,950	1,850
Angus	750	750	700	650	650	600	600
Argyll & Bute	200	200	300	350	400	400	450
Clackmannanshire	250	250	250	200	200	200	200
Dumfries & Galloway	300	300	400	550	600	650	700
Dundee City	100	100	0	-100	-150	-200	-250
East Ayrshire	100	100	100	50	50	50	50
East Dunbartonshire	-400	-400	-400	-450	-450	-450	-450
East Lothian	1,000	1,000	900	800	750	700	650
East Renfrewshire	-300	-300	-200	-100	-100	-50	0
Edinburgh, City of	5,250	5,200	4,750	4,200	3,950	3,750	3,500
Eilean Siar	150	150	150	150	150	150	150
Falkirk	600	600	600	650	650	650	650
Fife	1,900	1,900	1,950	2,050	2,050	2,050	2,100
Glasgow City	2,550	2,450	1,750	850	500	150	-200
Highland	1,850	1,850	1,800	1,750	1,700	1,700	1,650
Inverclyde	-300	-300	-300	-250	-250	-250	-250
Midlothian	100	100	0	-100	-100	-150	-200
Moray	500	500	400	300	300	250	200
North Ayrshire	-100	-100	0	100	150	200	250
North Lanarkshire	100	100	150	200	200	250	250
Orkney Islands	200	200	200	150	150	150	150
Perth & Kinross	1,950	1,950	1,800	1,700	1,600	1,550	1,500
Renfrewshire	-200	-200	-250	-300	-300	-350	-350
Scottish Borders	800	800	850	950	1,000	1,000	1,050
Shetland Islands	-150	-150	-100	-50	-50	0	0
South Ayrshire	350	350	400	400	450	450	450
South Lanarkshire	1,400	1,400	1,400	1,350	1,350	1,350	1,350
Stirling	900	900	750	600	550	500	450
West Dunbartonshire	-50	-50	-100	-150	-150	-200	-200
West Lothian	1,250	1,250	1,150	1,000	950	900	850

Source: Population Projections Scotland (2006-based) Annex E.

[www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html](http://www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/06pop-proj-scottishareas/index.html)

Table 2: Comparison between principal and high migration variant household projections by council area, 2011-2031

Local Authority	2011		2016		2021		2026		2031		% difference between principal and high migration variant projections in 2031
	Principal	High migration	Principal	High migration	Principal	High migration	Principal	High migration	Principal	High migration	
	Aberdeen City	105,500	107,060	107,110	110,680	107,260	112,970	106,880	114,910	105,770	
Aberdeenshire	105,590	106,240	112,700	114,230	119,700	122,190	126,170	129,690	131,590	136,190	3%
Angus	51,090	51,330	52,930	53,530	54,600	55,590	56,040	57,450	57,130	59,000	3%
Argyll & Bute	41,720	41,910	42,700	43,290	43,680	44,720	44,420	45,930	44,580	46,610	5%
Clackmannanshire	23,290	23,440	24,590	24,890	25,830	26,280	26,960	27,580	27,890	28,690	3%
Dumfries & Galloway	68,590	68,840	70,430	71,340	71,880	73,510	72,960	75,400	73,440	76,710	4%
Dundee City	69,200	69,730	69,640	70,910	69,500	71,600	69,230	72,220	68,870	72,770	6%
East Ayrshire	53,190	53,350	54,350	54,760	55,200	55,890	55,670	56,660	55,680	56,970	2%
East Dunbartonshire	42,830	43,000	43,080	43,450	43,040	43,640	42,710	43,560	41,890	43,040	3%
East Lothian	42,880	43,160	45,280	45,840	47,950	48,800	50,580	51,730	52,910	54,340	3%
East Renfrewshire	35,910	35,960	36,620	36,850	37,280	37,760	37,840	38,610	38,180	39,260	3%
Edinburgh, City of	230,100	232,760	245,540	252,330	259,670	271,110	273,970	290,460	287,890	309,920	8%
Eilean Siar	11,940	12,050	12,340	12,600	12,680	13,080	12,970	13,510	13,150	13,860	5%
Falkirk	70,010	70,260	73,690	74,340	77,080	78,180	80,230	81,810	82,840	84,950	3%
Fife	165,190	165,880	174,570	176,540	183,430	186,880	191,590	196,650	198,860	205,670	3%
Glasgow City	288,400	291,170	299,900	306,100	308,740	318,690	315,500	329,510	320,750	339,100	6%
Highland	102,590	103,180	108,050	109,680	113,010	115,800	117,350	121,390	120,890	126,240	4%
Inverclyde	36,690	36,800	36,890	37,150	36,820	37,220	36,410	36,990	35,620	36,350	2%
Midlothian	34,360	34,520	34,980	35,270	35,510	35,950	35,900	36,490	35,810	36,600	2%
Moray	39,440	39,760	40,580	41,270	41,380	42,530	41,850	43,520	41,710	43,960	5%
North Ayrshire	62,320	62,380	64,260	64,640	65,840	66,620	66,910	68,130	67,460	69,160	3%
North Lanarkshire	147,480	147,770	153,950	154,780	159,630	161,040	164,590	166,630	168,740	171,430	2%
Orkney Islands	9,540	9,580	10,270	10,300	10,910	10,940	11,490	11,510	12,000	12,010	0%
Perth & Kinross	66,780	67,260	71,350	72,400	75,750	77,430	79,940	82,320	83,950	87,120	4%
Renfrewshire	78,970	79,230	79,920	80,560	80,390	81,480	80,380	81,950	79,770	81,890	3%
Scottish Borders	52,600	52,750	55,480	56,020	58,310	59,320	60,950	62,510	63,220	65,360	3%
Shetland Islands	9,670	9,680	10,010	10,160	10,260	10,580	10,440	10,930	10,490	11,150	6%
South Ayrshire	51,780	51,940	53,130	53,630	54,260	55,140	55,060	56,350	55,460	57,190	3%
South Lanarkshire	140,180	140,620	147,400	148,570	154,170	156,140	160,220	163,040	165,440	169,200	2%
Stirling	38,930	39,260	41,040	41,880	42,900	44,300	44,590	46,600	46,080	48,740	6%
West Dunbartonshire	42,030	42,220	42,890	43,390	43,520	44,370	43,730	44,930	43,430	45,020	4%
West Lothian	75,210	75,650	80,430	81,400	85,560	87,100	90,470	92,620	94,950	97,730	3%
<b>Scotland</b>	<b>2,394,010</b>	<b>2,408,740</b>	<b>2,496,100</b>	<b>2,532,770</b>	<b>2,585,700</b>	<b>2,646,850</b>	<b>2,664,020</b>	<b>2,751,610</b>	<b>2,726,420</b>	<b>2,842,660</b>	<b>4%</b>

Chart 1: Household and population projections (principal and high migration variants), Scotland

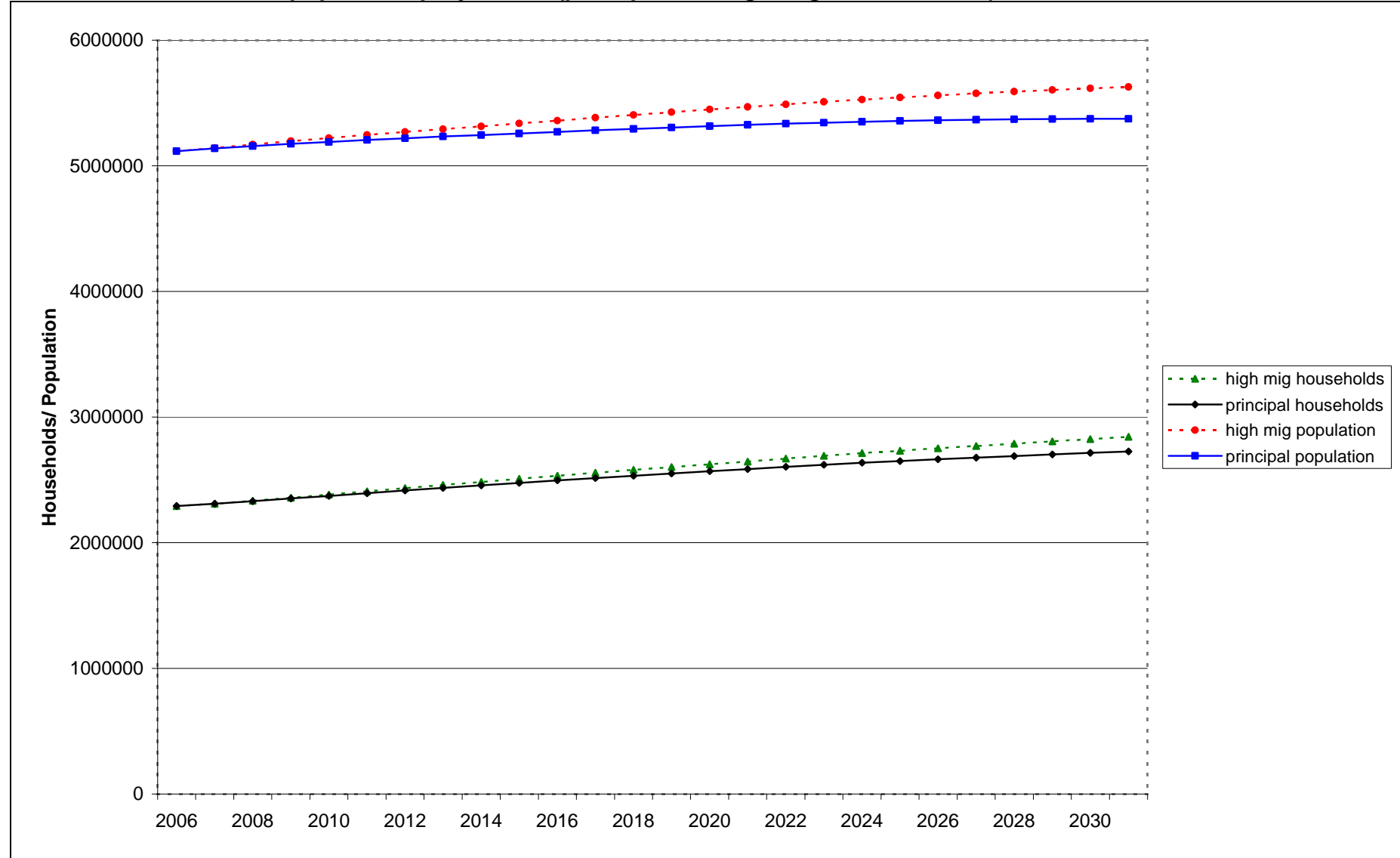


Chart 2: Projected percentage change in households, 2006-2031 (principal and high migration variant projections)

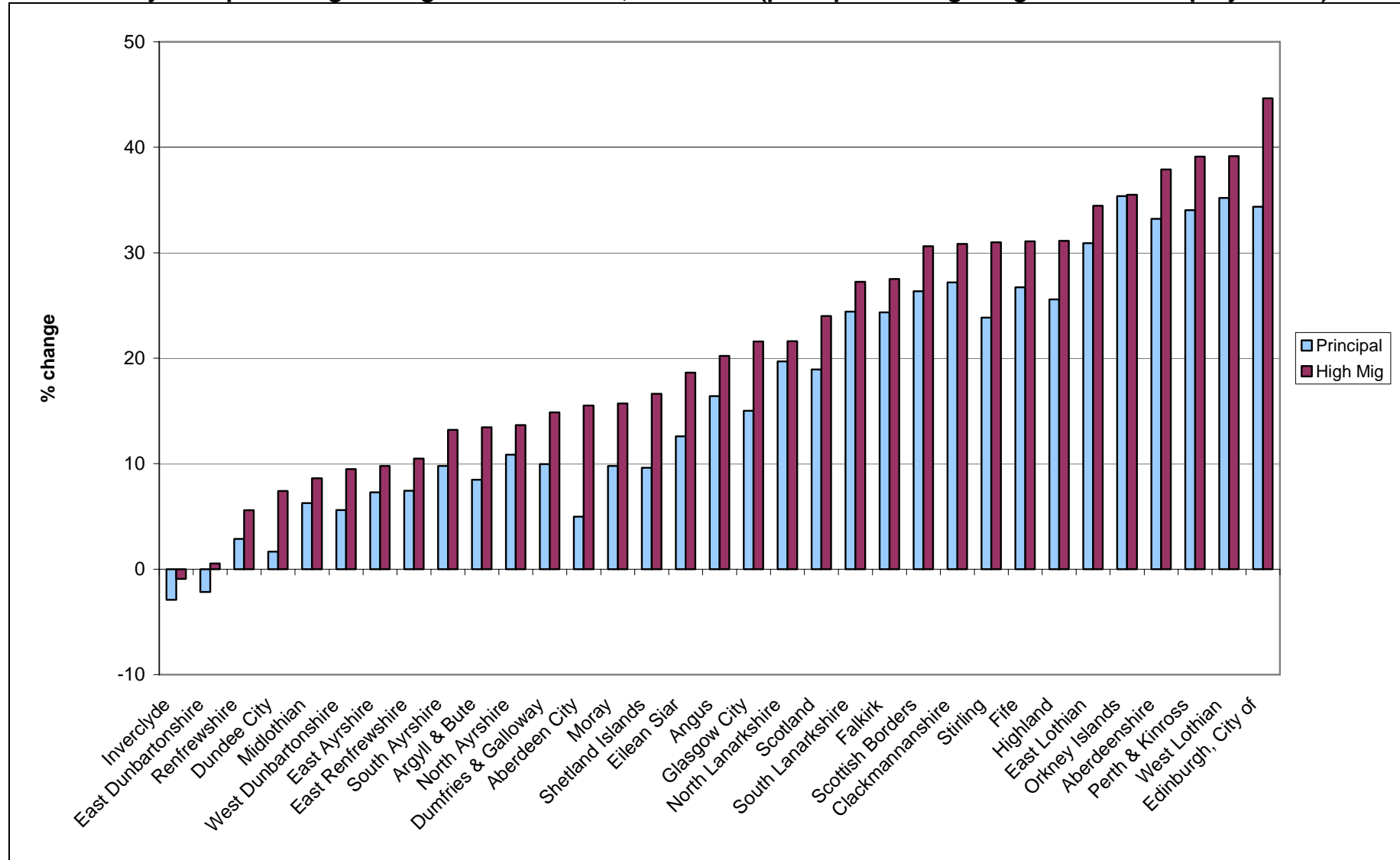




Chart 3: Principal and high migration variant projected households in 2031 by household type.

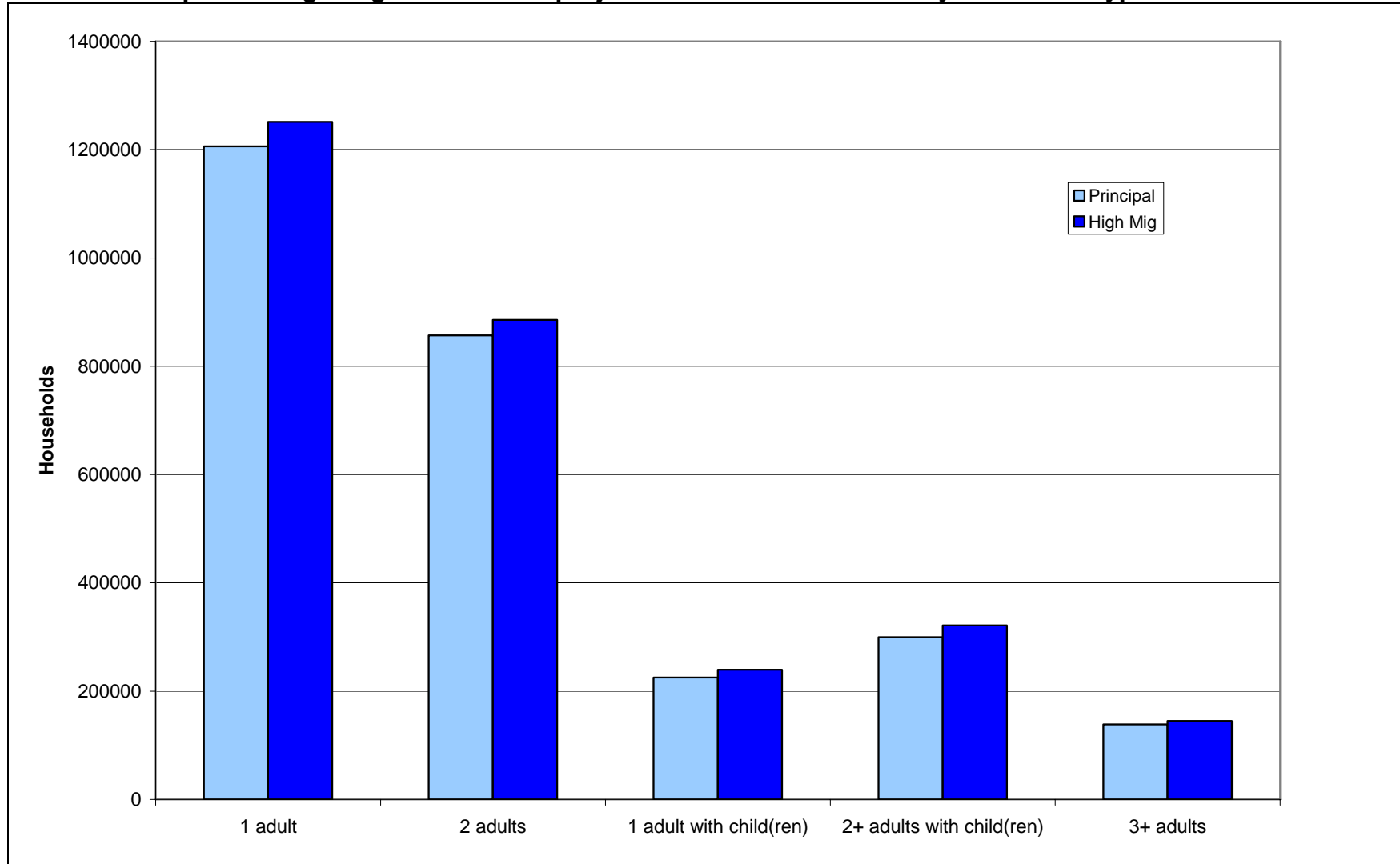


Chart 4: Principal and high migration variant projected households in 2031 by age group.

