



Household Analysis Review Group

12 April 2011

Incorporating Survey Data in Household Projections

NRS: Household Estimates and Projections



Background

Household Projections are calculated using

- ❖ *Most recent* population projections
- ❖ With *updated* CE data
- ❖ The most *recent* household estimates

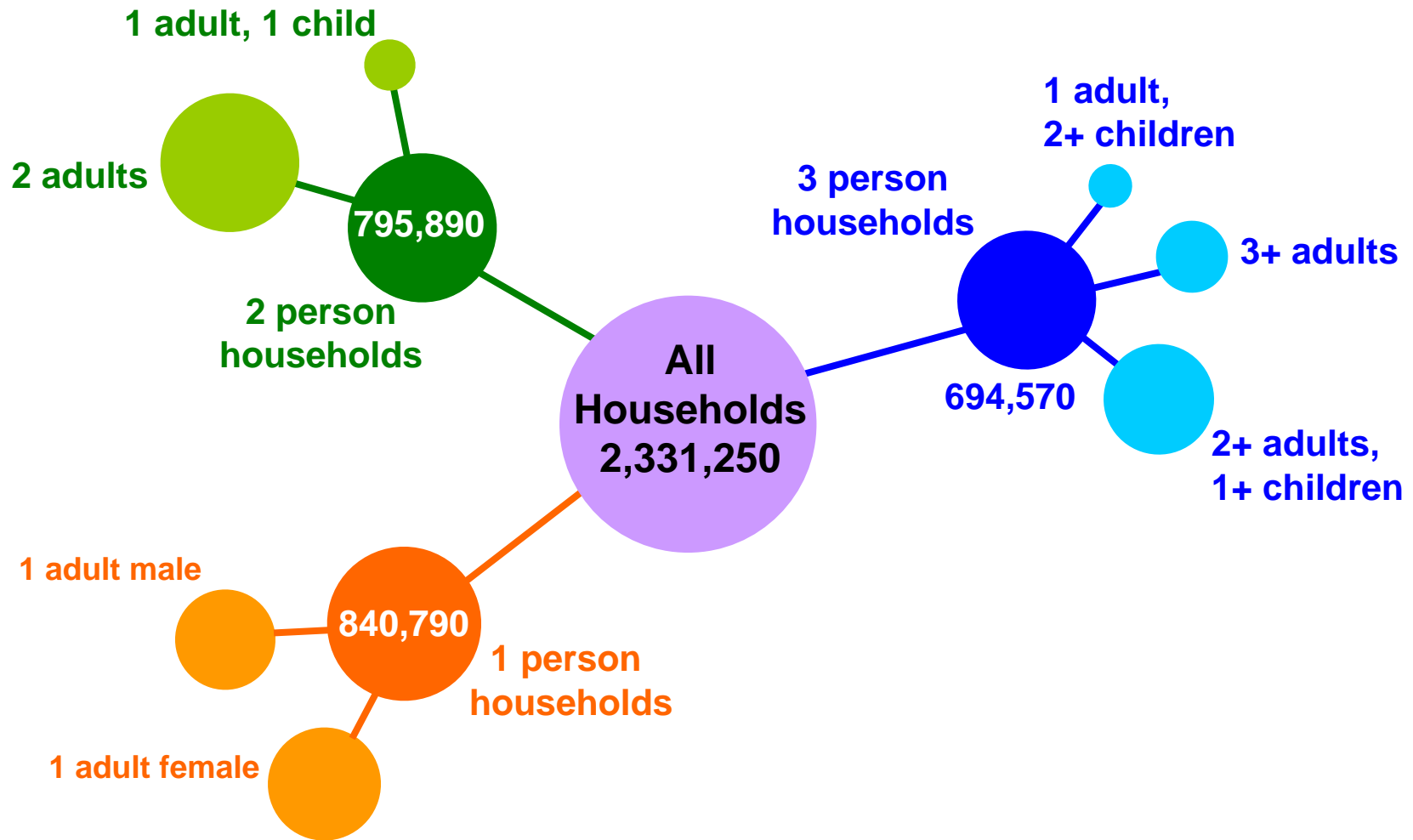
but

- ❖ Estimates for the number of households of each type are projected forward from the *1991 and 2001* Censuses



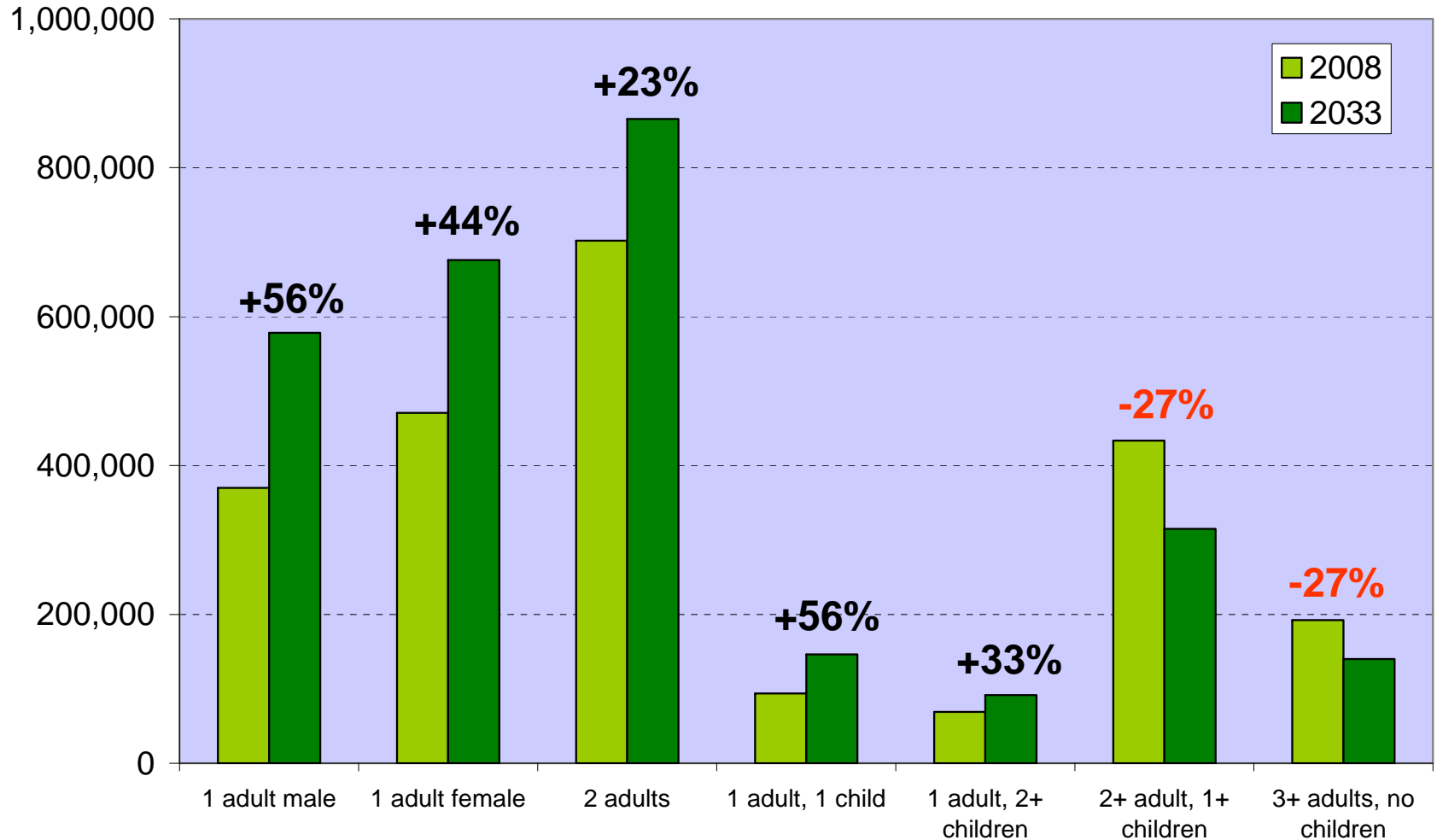
2008-based Household Projections

2008 Household Types





Projected numbers of household types, Scotland





Survey Data

The Scottish Household Survey (SHS)

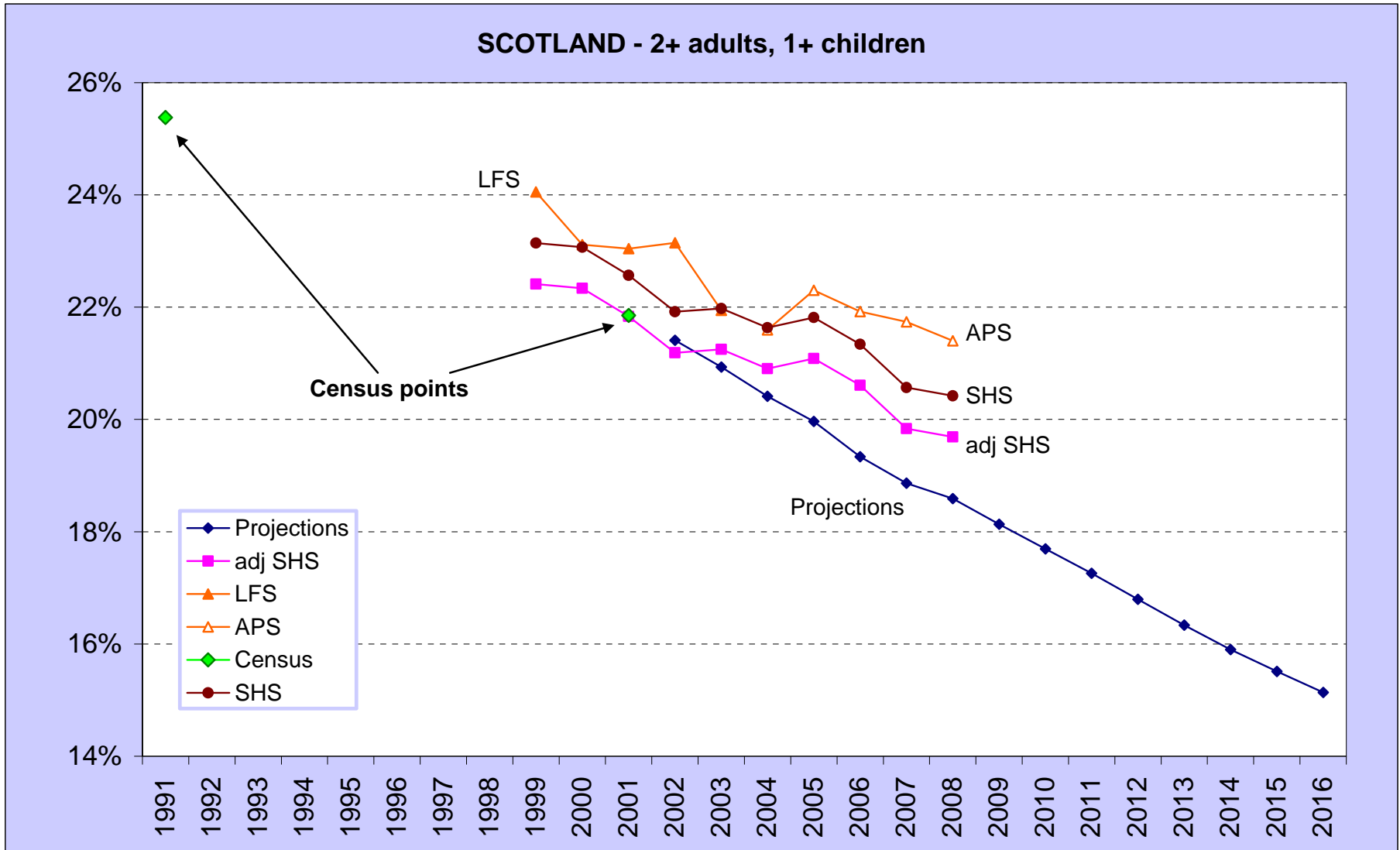
- ❖ Covers approximately 15,000 households per year

Labour Force (LFS) and Annual Population Surveys (APS)

- ❖ LF survey covered approximately 8,000 households
- ❖ In 2003 the LFS was boosted to 23,000 households and is now renamed the APS

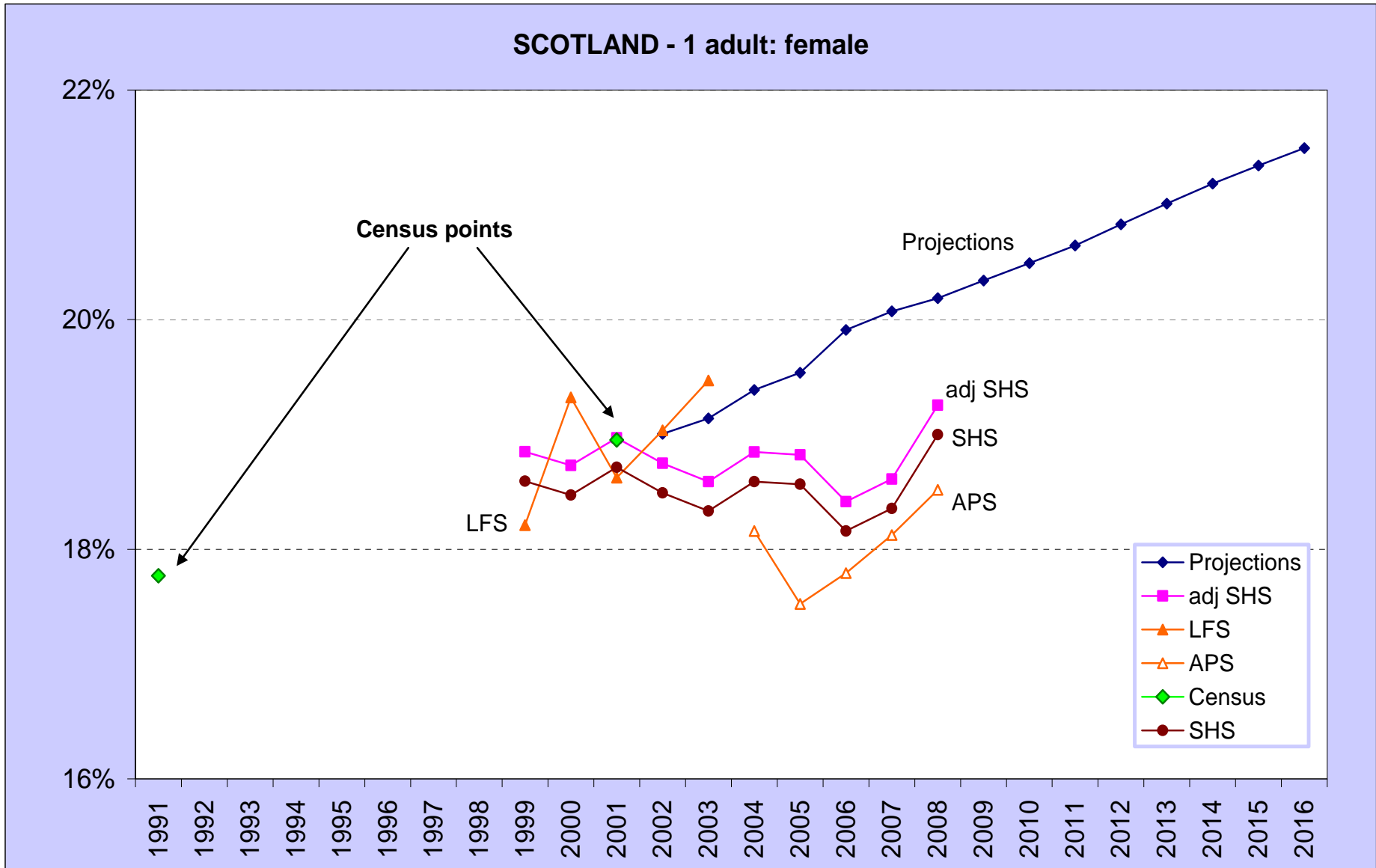


Comparing Survey proportions and projected Census proportions





Comparing Survey proportions and projected Census proportions



Combining Survey and Projected data

- ❖ SHS data was used as it can be calibrated to 2001 proportions
- ❖ To reflect uncertainty over accuracy of survey data a maximum weight of 50% was decided on, linked to the time since the last census.
- ❖ To overcome some of the variability in the survey data a 3 year smoothed average was used.



Projected proportions adjusted using 3 year smoothed SHS data

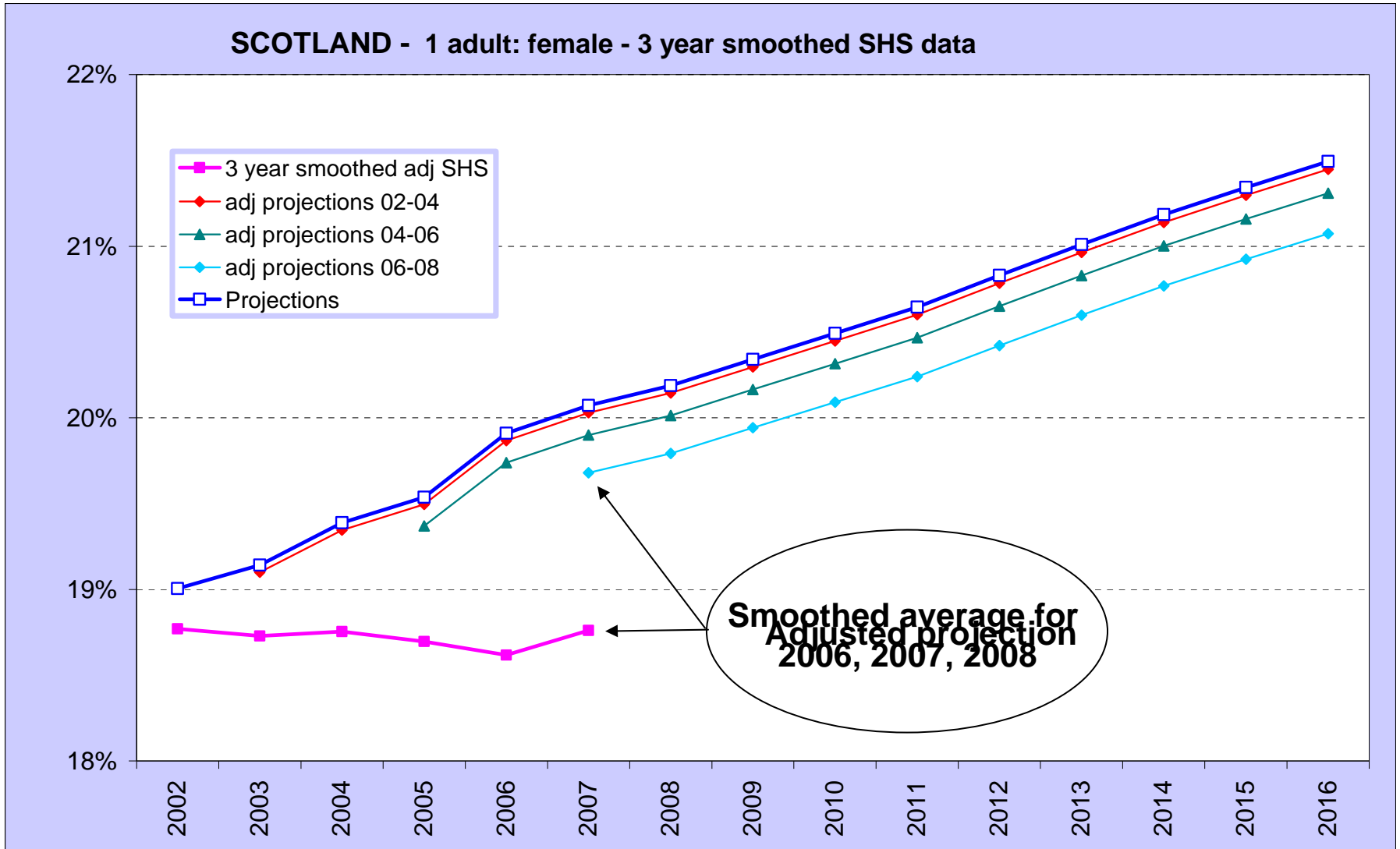
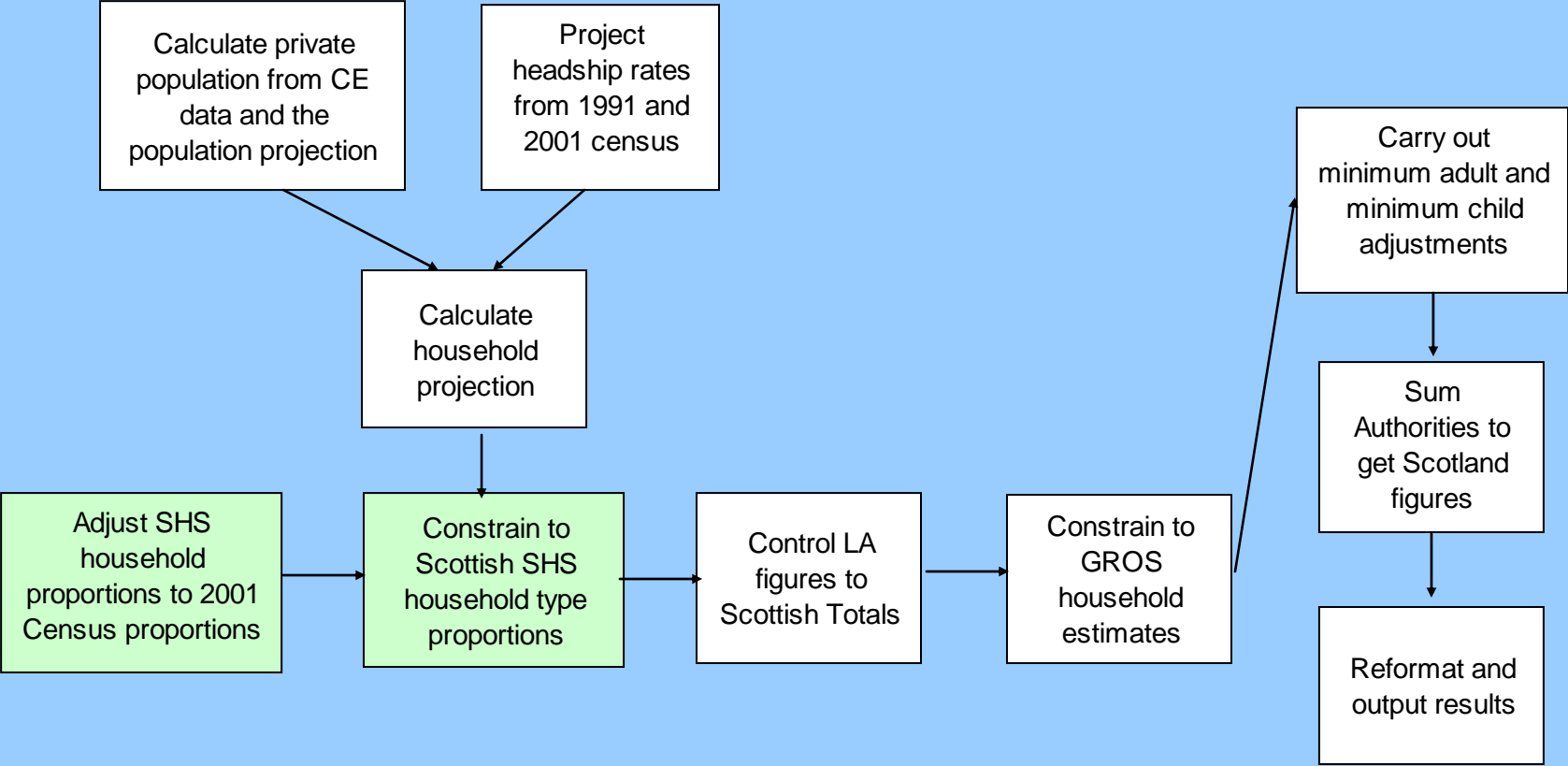


Diagram of Processing



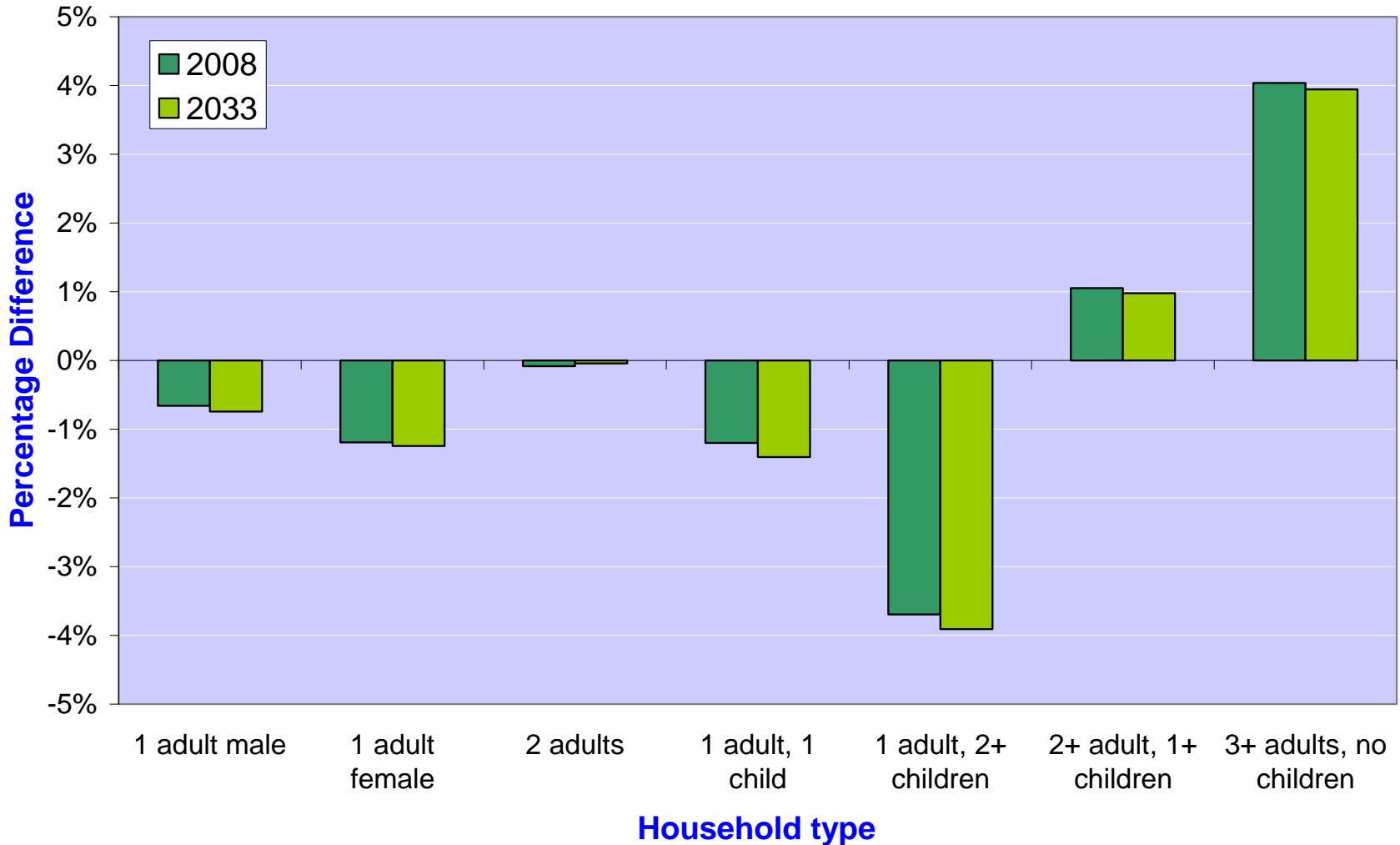


Comparing Scotland Results

Household size	Household type	2008		2033	
		unadjusted	shs adjusted	unadjusted	shs adjusted
One person households	1 adult male	370,160	367,720	578,060	573,760
	1 adult female	470,630	465,020	675,940	667,510
Two person households	2 adults	701,910	701,310	865,670	865,300
	1 adult, 1 child	93,980	92,860	146,410	144,360
3+ person households	1 adult, 2+ children	68,900	66,350	91,450	87,880
	2+ adult 1+ children	433,420	437,980	314,970	318,060
	3+ person all adult	192,250	200,010	140,000	145,530
All households		2,331,250	2,331,250	2,812,500	2,802,400

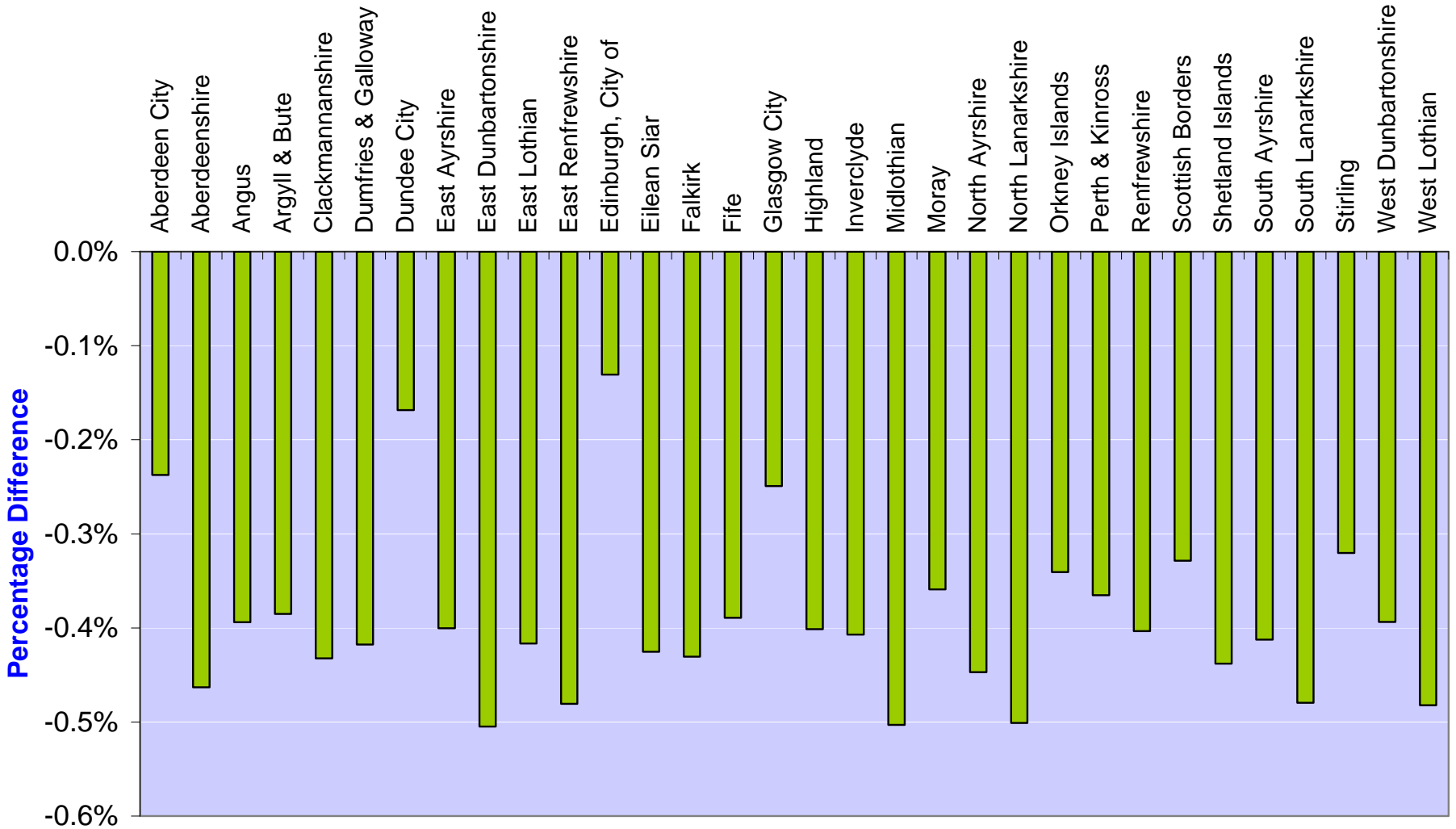


Scotland, Household types, percentage difference from unadjusted projections to SHS adjusted projections





Local Authority, Household types, percentage difference from unadjusted projections to SHS adjusted projections in 2033





HARG members are asked to comment on the analysis presented here and consider whether it is be appropriate to make adjustments to future household projections using survey data.