

Impact of 2014 mid-year estimates of population on current Labour Force Survey aggregates, 13 July 2015

Summary

The aim of this assessment is to provide an indication of the likely impact the 2014 mid-year estimates will have on the headline Labour Force Survey (LFS) aggregates when the LFS microdata is reweighted to these population estimates in early 2016.

The assessment concludes that the impact is minimal for UK estimates of employment, unemployment and inactivity; with revisions well within sampling error.

No interim adjustment will be made to headline aggregates before the full reweighting exercise next year. It is recommended that users continue to use the estimates as published.

Background

The current Labour Force Survey (LFS) aggregates of employment, unemployment and inactivity are weighted using population estimates derived from the 2012-based National Population Projections (NPPs), which themselves are consistent with the 2012 mid-year estimates (MYEs). The most recently published LFS aggregates are for the period Feb-Apr 2015 and these have been calculated using population estimates based on the change between the 2012-based projections for mid-2014 and mid-2015.

Under the established procedures, the LFS aggregates will be reweighted next in early 2016 using revised population estimates consistent with the 2014 MYEs published in June 2015 and the 2014-based NPPs to be published on 29 October 2015.

The 2014 MYEs were published on 25 June 2015. The estimates for mid-2013 were also revised but at a local authority level only, i.e. the UK totals were not affected. The key points from the release of the 2014 MYEs and how they compare with the projections are:

- Over the year to mid-2014 the total number of people resident in the UK increased by 491,100 (up 0.77%)
 - This compares with projected growth of 424,000 (0.66%) over the same period (according to 2012-based NPPs)
 - Consequently, the growth in total population is 67,000 higher for the MYEs than for the projections.
- Net international migration in the year to mid-2014 was 259,700, up from 183,400 in the year to mid-2013
 - This compares with the projected net international migration over the same period of 166,000.

By age group the new estimates indicate that:

- The population aged 16+ increased by 396,300 between 2013 and 2014, an increase of 0.76%.
 - This compares with projected growth of 351,300, or 0.67%
 - Consequently, the growth in population aged 16+ is 45,000 higher for the MYEs than for the projections.

- The population aged under 16 increased by 94,800 between 2013 and 2014, an increase of 0.79%.
 - This compares with projected growth of 73,000, or 0.60%
 - Consequently, the growth in under 16 population is 21,800 higher for the MYEs than for the projections (+ 0.19 in % terms)

These new population figures indicate that the population projections used for the current LFS aggregates are likely to be revised upwards slightly. Labour Market Division has therefore carried out an analytical exercise to estimate the approximate size of those revisions.

The LFS aggregates for mid-2014 (the May to July three month period) have been rescaled in line with the ratios of the new population estimates to the previous projections. The method is applied at UK level only, directly to the published figures, and does not represent the full effects of the detailed reweighting that will ultimately take place. Therefore the differences shown should be regarded as indicative only.

A similar exercise was carried out in 2013 when the mid-2012 population estimates were first released:

<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/articles-and-reports/census-based-reweighting-of-the-lfs--summary-of-detailed-impact-assessment.pdf>

Also in 2012 when the first set of detailed population figures from the 2011 Census was released:

<http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/labour/july-2012/assessment-of-census-population-figures-on-the-lfs-for-england-and-wales.pdf>

Impact

The assessment indicates that the revisions to the LFS aggregates for those aged 16 and over in mid-2014 will be around +22,000 for the employment level, -1,000 for unemployment and +12,000 for those economically inactive. Estimates for employment, unemployment and inactivity the previous year are all likely to be revised down slightly as indicated by the population estimates for mid-2013 being lower than the 2012-based NPPs for the same period.

The revised growth in the employment level between May-Jul 2013 and May-Jul 2014 is estimated to be 27,000 higher than that currently published. In percentage terms that annual growth in employment has been revised up from 2.2% to 2.4%.

The headline employment and unemployment rates are not expected to show any changes at the published precision.

A table showing the estimates described above can be found in the annex of this note.

The differences in the size of the revisions to employment, unemployment and inactivity arise from changes to the distribution of population. Age and gender differences in the population changes have been taken into account in this assessment; with the population revisions for women being greater than those for men. Regional effects will not be apparent until full reweighting next year.

The impact on LFS aggregates after mid-2014 cannot be assessed using the method described in this assessment as there is no published information on what the revised mid-2015 projections will be. ONS does not consider it appropriate to use the MYE growth rate for mid-2013 to mid-2014 in rescaling the existing growth between mid-2014 and mid-2015, as the methodology for calculating the components of change for the NPPs and MYEs by age group and gender are not directly comparable.

LFS reweighting

As previously stated, it is an established procedure to reweight the LFS and associated microdata, such as the Annual Population Survey (APS), to be consistent with the most recent population estimates. The recently published 2014 MYEs, revised 2013 MYEs and the 2014-based NPPs (to be published on 29 October 2015) will be used in the next reweighting exercise to start in late 2015 and conclude in early 2016. A timetable for the release of microdata will be confirmed later in 2015.

An article explaining the historical revisions in more detail will be published to coincide with this release of the revised LFS microdata and aggregates next year.

Labour Market Division, 13 July 2015

Annex

POPULATION ESTIMATES AND LFS AGGREGATES, JULY 2015								
Indicative Revised	Thousands							
	MYEs	LFS AGGREGATES						
People	All aged 16 & over	LFS POPULATION 16+	Total in employment 16+	Unemployed 16+	Economically inactive 16+	Employment rate 16-64 (%)	Unemployment rate 16+ (%)	Economic inactivity rate 16-64 (%)
May-Jul 2013	52,047	51,282	29,981	2,529	18,772	71.4	7.8	22.4
May-Jul 2014	52,443	51,669	30,688	2,045	18,935	72.7	6.3	22.3
<i>Change on the year</i>	396	387	707	-484	164	1.3	-1.5	-0.1
<i>Change %</i>	0.76	0.75	2.4	-19.1	0.9			
Men								
May-Jul 2013	25,358	24,977	15,960	1,450	7,567	76.3	8.3	16.6
May-Jul 2014	25,571	25,185	16,317	1,146	7,722	77.7	6.6	16.7
<i>Change on the year</i>	212	208	357	-304	155	1.4	-1.8	0.1
<i>Change %</i>	0.83	0.83	2.2	-21.0	2.0			
Women								
May-Jul 2013	26,689	26,305	14,022	1,079	11,205	66.7	7.2	28.1
May-Jul 2014	26,873	26,484	14,372	899	11,214	67.9	5.9	27.8
<i>Change on the year</i>	184	179	350	-180	9	1.2	-	1.3
<i>Change %</i>	0.68	0.68	2.4	-20.0	0.1			0.3
Original	NPPs							
People	All aged 16 & over	LFS POPULATION 16+	Total in employment 16+	Unemployed 16+	Economically inactive 16+	Employment rate 16-64 (%)	Unemployment rate 16+ (%)	Economic inactivity rate 16-64 (%)
May-Jul 2013	52,059	51,293	29,986	2,533	18,775	71.4	7.8	22.4
May-Jul 2014	52,410	51,635	30,666	2,046	18,923	72.7	6.3	22.3
<i>Change on the year</i>	351	342	681	-487	148	1.3	-1.5	-0.1
<i>Change %</i>	0.67	0.67	2.2	-23.8	0.8			
Men								
May-Jul 2013	25,373	24,991	15,968	1,453	7,570	76.3	8.3	16.6
May-Jul 2014	25,568	25,182	16,315	1,148	7,719	77.7	6.6	16.7
<i>Change on the year</i>	195	191	347	-305	149	1.4	-	1.8
<i>Change %</i>	0.76	0.76	2.1	-26.6	1.9			0.1
Women								
May-Jul 2013	26,686	26,302	14,018	1,080	11,204	66.7	7.2	28.1
May-Jul 2014	26,842	26,454	14,351	898	11,204	67.9	5.9	27.8
<i>Change on the year</i>	156	151	334	-181	-1	1.2	-1.3	-0.3
<i>Change %</i>	0.58	0.57	2.3	-20.2	0.0			
Indicative Revisions	MYEs - NPPs							
People	All aged 16 & over	LFS 16+	Total in employment 16+	Unemployed 16+	Economically inactive 16+	Employment rate 16-64 (%)	Unemployment rate 16+ (%)	Economic inactivity rate 16-64 (%)
May-Jul 2013	-12	-11	-5	-4	-3	0.0	0.0	0.0
May-Jul 2014	33	33	22	-1	12	0.0	0.0	0.0
<i>Change on the year</i>	45	45	27	3	15	0.0	0.0	0.0
<i>Change %</i>	0.09	0.09	0.14	4.65	0.09			
Men								
May-Jul 2013	-15	-14	-8	-3	-3	0.0	0.0	0.0
May-Jul 2014	3	3	2	-2	2	0.0	0.0	0.0
<i>Change on the year</i>	17	17	10	1	6	0.0	0.0	0.0
<i>Change %</i>	0.07	0.07	0.06	5.65	0.07			
Women								
May-Jul 2013	3	3	4	-1		0.0	0.0	0.0
May-Jul 2014	31	30	20		10	0.0	0.0	0.0
<i>Change on the year</i>	28	27	16	1	10	0.0	0.0	0.0
<i>Change %</i>	0.10	0.11	0.11	0.14	0.09			