

Labour Force Survey estimates of people in employment reporting a zero-hours contract, methodological note, August 2014

Summary of issues

As stated in the article: “Estimating Zero-Hours Contracts from the Labour Force Survey”¹ published in July 2013, the Labour Force Survey estimate of zero-hours contracts is subject to measurement issues. To summarise, these consist of:

- the shift from seasonal to calendar quarters in 2006 leading to missing responses in the working pattern variable between 2001 and 2005;
- potential non-response bias due to the lack of imputation carried out on the survey to the questions relating to working pattern;
- a ‘check’ in the LFS questionnaire, introduced in 2004, that did not allow survey respondents to say that they were in shift work and also worked on a zero-hours contract. This affected the April to June quarters each year across all five interview ‘waves’ making these estimates unreliable and, to a lesser extent, the October to December quarters in the first wave;
- the under reporting of zero-hours contracts to the survey due to responders not knowing their type of working arrangement.

The July 2013 article proposed a method to deal with the seasonal to calendar quarter switch-over and potential non-response bias and these remain in place for the estimates shown in the annex of this note. The following note attempts to explain the steps taken over the past 12 months to better understand and where possible quantify the outstanding issues on this topic.

Shift working and zero-hours contracts

It was acknowledged that the incompatibility of shift work and zero-hours contracts as applied to all shift types was not valid, and this ‘check’ was removed from October 2013. This has increased the number of people able to provide the zero-hours contract response to the working pattern question and has subsequently allowed for the publication of two estimates a year compiled on a consistent methodological basis on the April to June and October to December quarters.

During the data collection process, the coding of either shift working or zero-hours as the valid response was decided at point of interview. Therefore the effect of the removal of the shift working check in April to June 2014 can only be estimated as a range, with the maximum effect being an increase of up to 40 per cent in the number of people reporting a zero-hours contract. This confirms the initial judgement made in the July 2013 article that these periods are unreliable in estimating the number of people on a zero-hours contract.

The October to December periods between 2004 and 2012 were also affected by the incompatibility of zero-hours contracts and shift work ‘check’ - albeit to only 1/5th of the sample. This can be estimated to be around 8 per cent of the effect in April to June. Currently there is only one full quarter where this information has been collected and it is unclear if the relationship measured in 2014 between shift-working and zero-hours remained constant over the 10 year period. Although it certainly suggests it is likely to be sizable, an

¹ <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/articles-and-reports/zero-hours-contracts.pdf>

adjustment on the basis of the available information is not recommended. Nevertheless it is important to be aware of this discontinuity in the time-series.

Under reporting of zero-hours contracts

With the release of the October to December 2013 and April to June 2014 estimates of zero-hours contracts, it is evident that there is an increase in the recognition of zero-hours contracts compared with the respective periods a year earlier.

A table of estimates of zero-hours contracts by length of time with current employer is available in the annex of this report. Looking at the estimates for the October to December quarters, the large increase in the total of zero-hours contracts over the year to October to December 2013 has made little change in the distribution across the durations. The largest increase is within the 'less than 12 months' category which suggests an increase in the number of people recently starting a job on a zero-hours contract. However it is difficult to separate any genuine increase in the prevalence of zero-hours contracts in the economy from the increase in reporting to the survey. This can be seen by the increase in the level being due, in the main, to people who have been on this contract for a year or more; making it reasonable to infer that people are reporting their situation more readily than they were a year ago. This is likely due to increased awareness of the existence of zero-hours contracts since its rise in profile in the media and government over the past 12 months.

Conclusion

Improvements to the coverage & estimation of people in employment reporting a zero-hours contract have led to more reliable and comparable recent estimates from the LFS. These resultant changes have introduced a discontinuity in the time-series in 2013 and the ONS is advising users to only make very broad judgements when making comparisons over time. The LFS employee based estimates of people in employment on a zero-hours contract will continue to be published twice a year during February and August.

It is not possible to fully quantify the methodological effects on the estimates, although it is evident that they are sizeable. The coverage of zero-hours contracts in the media and the subsequent increase of public recognition in the latter half of 2013 and 2014 have helped to improve survey response but as a result have made it difficult to separate any genuine change in the prevalence of these contracts in the labour market from this greater awareness and the introduction of the methodological improvements.

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Annex

Level and rate of people on zero-hours contracts^{1,2} October to December, each year 2000 to 2013, April to June 2014

UK, not seasonally adjusted			
		In employment on a zero hour contract (thousands)	Percentage of people in employment on a zero hour contract
2000	Oct-Dec	225	0.8
2001	Oct-Dec	176	0.6
2002	Oct-Dec	156	0.6
2003	Oct-Dec	124	0.4
2004	Oct-Dec	108	0.4
2005	Oct-Dec	119	0.4
2006	Oct-Dec	147	0.5
2007	Oct-Dec	165	0.6
2008	Oct-Dec	143	0.5
2009	Oct-Dec	190	0.7
2010	Oct-Dec	168	0.6
2011	Oct-Dec	189	0.6
2012	Oct-Dec	250	0.8
2013	Oct-Dec	583	1.9
2014	Apr-Jun	622	2.0 **

Source: ONS Labour Force Survey

¹ Zero-hours contract - is where a person is not contracted to work a set number of hours, and is only paid for the number of hours that they actually work.

² Series adjusted for pre-2006 change from seasonal to calendar quarters and for missing cases that cannot be brought forward

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Guide to Quality:

The Coefficient of Variation (CV) indicates the quality of an estimate, the smaller the CV value the higher the quality. The true value is likely to lie within +/- twice the CV - for example, for April to June 2014 it is estimated that the true zero-hours contract figure is likely to lie between 558,000 and 686,000. This is in addition to the likely reporting error as mentioned in the attached note.

KEY	Coefficient of Variation (CV)	Statistical Robustness
*	$0 \leq CV < 5$	Estimates are considered precise.
**	$5 \leq CV < 10$	Estimates are considered reasonably precise.
***	$10 \leq CV < 20$	Estimates are considered acceptable.
****	$CV \geq 20$	Estimates are considered too unreliable for practical purposes

**Length of time with current employer of people on zero-hours contracts
October to December, each year**

Thousands

	October to December 2013		October to December 2012	
	In employment on a zero-hours contract	As a proportion of zero-hours contracts	In employment on a zero-hours contract	As a proportion of zero-hours contracts
Less than 12 months	227	39 **	87	35 ***
1 year but less than 2	120	21 **	53	21 ***
2 years but less than 5	130	22 **	56	22 ***
5 years but less than 10	54	9 ***	31	12 ***
10 years or more	48	8 ***	-	- ****
Total ¹	583	100	250	100

Source: Labour Force Survey (LFS)

¹ Includes those that did not state their time with current employer

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