Labour Market Statistics: December 2016 quarter

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#####Period-specific information

######Response Rates

See [New quality measures for the Household Labour Force Survey](#) for more information on the sample rate and response rates.

######14 November Earthquake impact on LCI Response Rates

We received 95 percent of the questionnaires sent for the December 2016 quarter labour cost index survey. About 5 percent of these were in the Statistics House building at the time of the earthquake, and the data had not been entered. These have not been recovered. Where we have been unable to access this information we carried forward the previous data reported. This could have a slight dampening effect on the index movements in the December 2016 quarter, but these movements will be shown in the March 2017 quarter.

######14 November Earthquake impact on HLFS

The earthquake on the 14th November disrupted data collection of the December 2016 quarter for the Household Labour Force Survey (HLFS). Computer Assisted Telephone Interviewing (CATI) was not operational between the 14th and 23rd November due to contact centre systems being down. Whilst Computer Assisted Personal Interviewing (CAPI i.e. field collections) for Wellington and parts of Nelson/Tasman/Marlborough/West Coast and Canterbury were suspended over the week starting on the 13th November, which was to manage interviewer safety in regions most impacted by the quake. In the weeks following, field collection in Wellington and across the South Island was resumed. Whereas dwellings in Kaikoura and Seddon were not interviewed for the remainder of the December quarter in order to manage respondent burden.

The challenges in data collection for the December 2016 quarter did impact the survey's ability to meet its design specifications. The disruption in collection led to respondents being interviewed about a reference week that was not their assigned reference week; individuals are interviewed about the week preceding their interview. As a result of the earthquake, the cases for the December 2016 quarter were not evenly spread across the 13 reference weeks. It is worth noting that collection loads typically vary across weeks for most quarters. However, this was exacerbated for the December quarter due to the quake. There was a relatively small number of respondents interviewed about the reference week starting on the 6th November due to an inability to complete CATI cases in the week starting on the 13th. Whilst there were a relatively large portion of the sample interviewed about the reference weeks starting on the 13th, 20th and 27th November as CATI resumed and attempts were made to reach the target achieved sample rate. This is a limiting factor on the relevance of the survey; in that it impedes the product's ability to provide a uniform representation across all 13 weeks of the December quarter.

Furthermore, the achieved sample size for the HLFS this quarter was 14713 households, which was below the 15000 target. However, the table HLFS Achieved Sample Rates below, shows that this was comparable to previous quarters. A reduced sample size results in an increase in the variance of estimates. There was no evidence of any bias induced into the survey as a result of the reduced sample size. Comparisons of the matched (i.e. individuals that responded in both the previous quarter and current quarter) and unmatched (i.e. individuals that responded in the previous quarter but not in the current quarter) samples did not suggest that respondents differed to non-respondents with regards to labour market composition. Furthermore, the demographic characteristics of the unmatched sample this quarter were comparable to previous unmatched samples, which suggest that the nature of those not captured in the survey did not change as a result of the disruption to collections this quarter. These findings suggest that the estimates and degree of accuracy from the December 2016 HLFS are comparable with previous quarters.

| HLFS Achieved Sample Rates ||||

*The December 2015 quarter achieved sample rates capture the HLFS questionnaire pre-redevelopment which included a self-complete response option for respondents.
**The September 2016 and December 2016 quarters rates capture the HLFS questionnaire post-redevelopment.

######HLFS
######Estimates of employment by industry improved

In the June 2016 and September 2016 quarter there were a higher than usual number of employed people classified to the 'not specified' industry group. A large proportion of this not specified group are self-employed people from whom we did not collect the information required to assign an industry.

The new HLFS was designed to be better at identifying an individual's employment status. This included better identification of self-employed people versus paid employees. However, there are scenarios where those who identify themselves as self-employed later in the questionnaire are not then asked to provide their main activity (which is used to determine the industry worked in). There were no means of assigning an industry classification to these respondents in the June and September 2016 quarters, but additional changes have been made to our survey to resolve this issue in the December 2016 quarter, and going forward.

######Outliers
During the seasonal adjustment process, X-13-ARIMA-SEATS can give less weight to the irregular component. Specifically, if

the estimated irregular component at a point in time is sufficiently large compared with the standard deviation of the irregular component as a whole, then the irregular component at that point can be downweighted or removed completely and re-estimated. We refer to such observations as partial- and zero-outliers, respectively. In practice, the downweighting of outliers does little to seasonally adjusted data, but the impact of the outliers on the trend series will generally be reduced. However, if an outlier ceases to be an outlier as more data becomes available, then significant revisions to the trend series become possible.

The table below shows any partial (P) and zero (Z) outliers for the last year of each time series

######HLFS pre- and post-calibration weight
The following figure shows that while the distribution of the pre- and post-calibration weights differs within a quarter, the difference between the weights typically does not change from quarter to quarter.
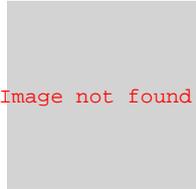

The undercoverage rate indicates how representative the pre-calibrated sample is. The higher the undercoverage rate, the less representative the pre-calibrated sample.

Usually the undercoverage rate in the HLFS is around 20 percent. The overall undercoverage rate for the HLFS in the December 2016 quarter was 17.6 percent. This compares with 17.0 percent in the September 2016 quarter and 19.8 percent in the December 2015 quarter.

######General information and methodology

For general information and methodology on the specific surveys within the labour market statistics release, please see the following Datainfo+ pages:

• Household Labour Force Survey
• Labour Cost Index
• Quarterly Employment Survey