

LABOUR FORCE, AUSTRALIA, APRIL 2011 (cat. no. 6202.0), Briefing note

The above publication was released at 11.30 am today. I am bringing its release to your attention as the NSW seasonally adjusted estimate for total employed shows a large decrease. This decrease is greater than 2 and a half times the standard error for the movement estimate and is also the second largest seasonally adjusted decrease recorded for NSW. The result in NSW is also reflected in the National estimate which is showing a decrease in total employment (seasonally adjusted).

In seasonally adjusted terms the publication is showing a decrease in total employment in NSW of 44,000 persons (decrease in NSW employment of 4,700 persons in trend terms). At the same time Queensland total employment has increased by 18,000 persons seasonally adjusted. The national estimate has decreased by 22,100 persons from March 2011, seasonally adjusted. The estimates have been thoroughly scrutinised and quality assured, and ABS is satisfied the estimates are the best available. However, these data series are subject to volatility as they are compiled from a sample of households and the estimates are subject to sample error.

Specifically, the ABS has confirmed that despite enumeration taking place during the NSW school holidays, response rates and sample loss were consistent with previous months. The fall in employment was observed across all age groups. Gross flows analysis support a broad-based shift from employed (in March) to not in the labour force (in April). The ABS did identify a stronger than usual impact arising from employed persons in the March sample shifting residence and being replaced by other persons in the April sample. This impact was strongest in a few regions which are proximate to Queensland or where the occupation distribution shows higher than average proportion of employed persons in the Technicians and trades workers occupation major group.

Given the volatility in the seasonally adjusted series, the ABS would encourage users to focus on the trend estimates.

To: Labour Force Lockup

Briefing Note: *Unemployment Figures*

Please find attached a briefing note concerning the rise in the estimated unemployment rate to 5.1% (seasonally adjusted).

Seasonally adjusted data are more volatile than the trend series. As always, the ABS strongly encourages that the trend unemployment rate be referred in analysis and commentary. The trend unemployment rate remained steady at 5.0%.

Any queries should be raised with the Labour Force in Canberra (02) 6252 6525.

Paul Mahoney
Head, Labour and Demography Statistics Branch
11th of August 2011

Summary

This month's unemployment rate increased 0.14 pts (seasonally adjusted). In the original data, the unemployment rate fell, but not as much as the "usual" fall in July, so the seasonal adjustment process has only partly corrected for this unusually small July fall. The appropriateness of the adjustment was reviewed, and it was observed that the changes in the original unemployment estimates for June to July in 2010 and 2011 appear to be somewhat different (much smaller) from previous June to July movements (See below). The cause of the differences in the July pattern for 2010 and 2011 may fall into two possible categories:

- Two consecutive small movements (both one-off events, not expected to continue into next July) – in which case the July seasonal pattern may return to normal next July.

Or

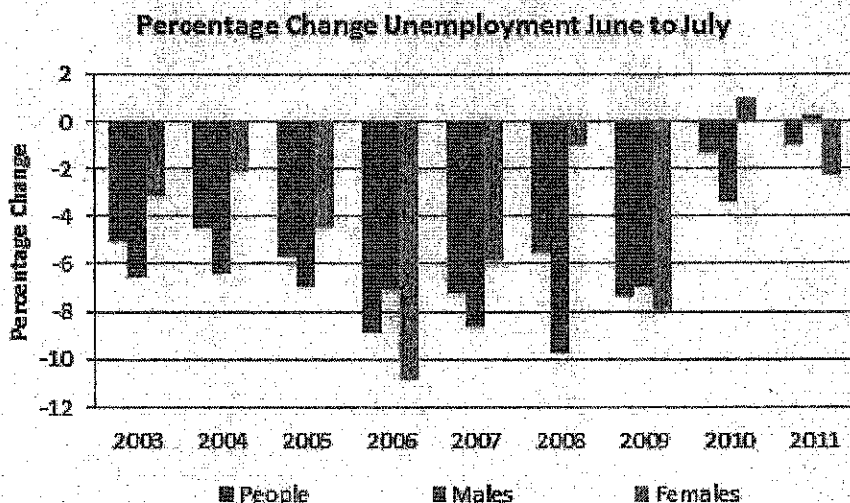
- A permanent change to the established seasonal pattern, which would be expected to continue into next July and beyond.

It is, in theory, possible to apply some special adjustment to the two most recent June-July movements.

The two small June to July movements could be treated as outliers in the seasonal adjustment process, although, this would increase the seasonally adjusted unemployment rate in July further.

Alternatively, the two June to July movements could be treated as evidence of a change in seasonality and a seasonal break correction could be applied. This would smooth out the unusual seasonal adjusted behaviour and bring down the unemployment rate. However, if the differences later prove to be one-offs, then further intervention would be needed to fix the erroneous "correction".

The ABS aims to minimise the amount of manual intervention in the seasonal adjustment process to avoid introducing erroneous corrections. We do not believe we have sufficient evidence at this time to warrant special adjustment. We need to have a better understanding about the nature of these unusual numbers before intervening, to prevent unnecessary and unhelpful intervention.



To: Labour Force Lockup

Briefing Note: *Employment Figures*

Please find below a brief note concerning the rise in full-time employment in Western Australia and the largest fall in male full-time employment in Queensland.

Seasonally adjusted data are more volatile than the trend series. As always, the ABS strongly encourages that trend employment be referred to in analysis and commentary.

Paul Mahoney

Assistant Statistician (a/g), Labour and Demography

8th March 2012

LABOUR FORCE, AUSTRALIA, FEBRUARY 2012 (cat. no. 6202.0) Briefing Note

The above publication was released at 11.30am today. I am bringing its release to your attention as Queensland and Western Australia's seasonally adjusted employment estimates moved significantly this month.

Specifically, Queensland full-time male employment had the largest decrease on record of 22,800. This was confirmed by significant gross flows movements from full-time employment into part-time and not in the labour force. Seasonal analysis this month may also have increased volatility due to unusual estimates in February 2011, due to the Queensland floods, and also February 2010, due to the LFS sample re-instatement.

Western Australian data showed a significant full-time employment increase of 16,300 and the increase was driven by both men and women. The gross flows are broadly supportive of these movements with larger than usual moves from part-time, unemployed and not in the labour force into full-time employment.

The estimates have been thoroughly scrutinised and quality assured and the ABS is satisfied the estimates are the best available. However, these data series are subject to volatility as they are compiled from a sample of households and the estimates are subject to sample error.

Given the volatility in the seasonally adjusted series, the ABS would encourage users to focus on the trend estimates.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. This involves the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a discussion of the implications of the findings. It suggests that the results have significant implications for the field of study and provides recommendations for future research. The author also acknowledges the limitations of the study and offers suggestions for how these can be addressed in subsequent work.

To: Labour Force Lockup

Briefing Note: Population Benchmarks used in Labour Force estimates

Please find below a brief note on the Population Benchmarks used as a population denominator in the Labour Force Survey estimates.

Paul Mahoney

Assistant Statistician (a/g), Labour Branch

11/04/2012

LABOUR FORCE, AUSTRALIA, MARCH 2012 (cat. No. 6202.0) BRIEFING NOTE

Labour Force Population Benchmarks

Population benchmarks are produced quarterly for use as a population denominator in the monthly Labour Force Survey (LFS) estimates using assumptions for future population growth including Net Overseas Migration (NOM) for the relevant reference period.

The population benchmark used in this LFS release was produced for the quarter January to March 2012 with growth in each of the three months interpolated as roughly equal. The population benchmark is projected to be 18,536,831 which is an increase of 55,446 persons over the quarter.

At the national level, population benchmarks are projections of Estimated Residential Population (ERP) based on assumptions made on the two components of population growth, Natural Increase and NOM. In the case of Natural Increase the increase is assumed to be equal to the increase for the same period in the previous year. In the case of NOM the assumptions give regard to available information at the time of production including Department of Immigration and Citizenship (DIAC) projections of NOM for the period.

The ABS has received questions recently regarding the composition of population benchmarks and the differences between the population benchmark used in the LFS estimates and Estimated Resident Population (ERP) statistics released in Australian Demographic Statistics (3101.0). In particular, interest has focused on the overseas migration component of ERP and the differences between estimates of NOM and Overseas Arrivals and Departures (OAD) statistics.

Overseas Arrivals and Departures

OAD statistics are a count of movements or border crossings. They rely on a traveller's stated intention on duration of stay in, or absence from Australia collected from passenger cards and consequently do not take account of actual traveller behaviour over time. OAD is released monthly, five to six weeks after the reference period and therefore is the most timely data available on

international border movements. The ABS understands that some users seek to find patterns in OAD data which are then used as an early indicator of NOM trends. However, experience has shown that stated intentions as indicated in OAD statistics may differ from actual behaviour as measured by NOM.

Net Overseas Migration

NOM is based on an international traveller's duration of stay being in or out of Australia for 12 months or more. Preliminary NOM is derived having regard to modelled behaviour of travellers with similar characteristics and stated intentions in the past. It is compiled and published 6 months after the traveller's movement is recorded. NOM is then revised between 21 and 24 months later based on actual behaviour of individual travellers over a 16 month period following the reference quarter.

Because of the differences between what is being measured in OAD and NOM and the differences between Preliminary and Final NOM it is inevitable that using OAD as an early indicator of NOM will have its shortfalls and these shortfalls are most likely to present themselves in times of change or turning points in overseas migration trends.

NOM and Labour Force Population Benchmarks

LFS population benchmarks are the most accurate estimates of population available at the time of release and are published in advance of ERP estimates for the period. Consequently, NOM used to estimate LFS population benchmarks differs from preliminary and final NOM. It is projected forward a quarter at a time, from the latest available ERP data (in the current context, June 2011) and takes into account the DIAC projections, recent trends and previous projections to provide a coherent series.

LFS population benchmarks are revised every five years after the ERP is updated to reflect results from the latest Census of Population and Housing (the next rebenchmarking is scheduled for the July 2013 reference month). If required, rebenchmarking can be (and has been) scheduled on a more frequent basis.

To: Labour Force Lockup

Briefing Note: Victorian Employment Figures

Please find below a brief note concerning the rise in employment in Victoria.

Seasonally adjusted data are more volatile than the trend series. As always, the ABS strongly encourages that trend employment be referred to in analysis and commentary.

Paul Mahoney

Assistant Statistician Labour Branch

7th June 2012

LABOUR FORCE, AUSTRALIA, May 2012 (cat. no. 6202.0) Briefing Note

The above publication was released at 11.30am today. I'm bringing its release to your attention as Victoria's seasonally adjusted employment estimates have been impacted by the incoming and outgoing sample rotation groups this month.

Specifically, Victoria's employment increased by 13,500 people which was influenced by a more employed cohort that entered the survey than left it this month. As well, the incoming rotation group contains a group of women who are more employed full time than the outgoing rotation group. Tests that we have conducted suggest that overall employment for Victoria may have fallen had it not been for the difference between the outgoing and incoming rotation groups.

It is also likely that the change between rotation groups caused an increase in the participation rate for women in Victoria this month.

The estimates have been thoroughly scrutinised and quality assured and the ABS is satisfied the estimates are the best available. However, these data series are subject to volatility as they are compiled from a sample of households and the estimates are subject to sample error.

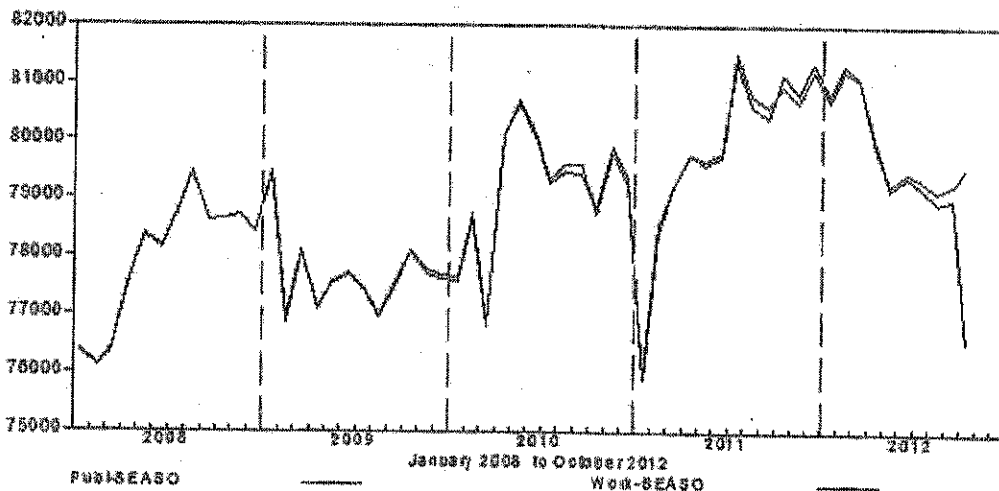
Given the volatility in the seasonally adjusted series, the ABS would encourage users to focus on the trend estimates.

To: Labour Force Lockup

Briefing Note: Queensland Aggregate Hours change in October 2012 *Labour Force, Australia* (cat. no. 6202.0) due to Queen's Birthday public holiday.

In 2012, the Queensland State Government changed the timing of their Queen's Birthday public holiday from June to October. The June Queen's Birthday public holiday timing was maintained for 2012 and observed as the Queen's Jubilee public holiday instead. As such, the seasonal factors applied to the June data remain unchanged.

For the new Queen's Birthday public holiday in October, the addition of the public holiday was treated as an outlier, the size of which was estimated and applied manually into the existing Queensland Queen's Birthday seasonal factors. The graph below shows the data uncorrected for the Queen's Birthday in blue and the improved seasonally adjusted estimate in red.



Corresponding changes were also applied to the Australian public holidays seasonal factors.

There is a risk that this effect has been overestimated if there has also been a concurrent "real world" declining trend in the aggregate hours worked in Queensland.

The new October 2012 estimate will be revised as future month's original data becomes available.

As always, the ABS strongly encourages that the trend aggregate hours worked be referred to in analysis and commentary. The trend aggregate hours worked in Queensland increased 398 thousand hours in October 2012 to 334.9 million hours:

Any queries should be raised with the Labour Force in Canberra on (02) 6252 6525.

Tom Joseph
Assistant Statistician - Labour Branch
8 November 2012

To: Labour Force Lockup

Briefing Note: Rebenchmarking of labour force series.

In order to better reflect recent trends in population growth in a timely manner, the ABS has rebenchmarked Labour Force estimates to align with the latest available information on population growth. This has resulted in revisions to the level estimates (i.e. number of employed people) and the annual employment growth estimates for the period July 2008 to October 2012. Rate estimates, such as the unemployment rate and participation rate, have not been revised by any discernible amount. See Feature article in November 2012 issue of *Labour Force, Australia* (cat. no. 6202.0) for more information.

These revisions do not involve any changes to the data collected in the labour force survey. Changes to the LFS population benchmarks impact primarily on the magnitude of the labour force estimates (i.e. employment and unemployment) that are directly related to the underlying size of the population. Changes in population composition such as age, sex or region (as used in the population benchmarks) may result in a different rate of change for different states or territories. The rebenchmarking has not resulted in any material change to unemployment rates, participation rates or employment to population ratios.

	Employment, Trend ('000)		Annual Employment Growth, Trend ('000)		Annual Employment Growth, Trend (%)	
	Average size of monthly revisions	Largest Revision	2010	2011	2010	2011
Aust.	28.1 (0.2%)	-77.1 (0.7%)	303.2 (down 59.1)	81.9 (up 51.2)	2.7% (down 0.5 pts)	0.7% (up 0.4 pts)
NSW	10.4 (0.3%)	-23.5 (0.7%)	121.4 (down 16.3)	-3.5 (up 9.6)	3.4% (down 0.4 pts)	-0.1% (up 0.3 pts)
Vic	8.3 (0.3%)	-21.8 (0.8%)	77.7 (down 18.9)	4.8 (up 11.1)	2.7% (down 0.6 pts)	0.2% (up 0.4 pts)
Qld	7.1 (0.3%)	-18.8 (0.8%)	55.1 (down 15.3)	29.8 (up 12.4)	2.4% (down 0.6 pts)	1.3% (up 0.5 pts)
SA	1.5 (0.2%)	-4.2 (0.5%)	5.0 (down 3.8)	7.5 (up 0.9)	0.6% (down 0.5 pts)	0.9% (up 0.1 pts)
WA	5.3 (0.4%)	11.7 (0.9%)	34.1 (down 3.4)	43.0 (up 16.8)	2.8% (down 0.3 pts)	3.4% (up 1.3 pts)
Tas	0.4 (0.2%)	-1.1 (0.5%)	4.9 (down 0.4)	-2.1 (down 0.5)	2.1% (down 0.2 pts)	-0.9% (down 0.2 pts)
NT	0.7 (0.6%)	-1.5 (1.3%)	0.4 (down 1.4)	2.8 (up 0.9)	0.4% (down 1.2 pts)	2.2% (up 0.7 pts)
ACT	0.2 (0.1%)	0.6 (0.3%)	6.0 (up 0.2)	*-0.2 (down 0.2)	2.9% (up 0.1 pts)	-0.1% (down 0.1 pts)

	Unemployment, Trend ('000)		Aggregate monthly hours worked, Trend (million)		Civilian Population aged 15 years and over, Original ('000)	
	Average size of monthly revisions	Largest Revision	Average size of monthly revisions	Largest Revision	Average size of monthly revisions	Largest Revision
Aust.	2.0 (0.3%)	-5.5 (0.9%)	4.3 (0.3%)	-11.7 (0.7%)	39.7 (0.2%)	-110.2 (0.6%)
NSW	0.7 (0.4%)	-1.7 (0.9%)	1.6 (0.3%)	-3.5 (0.7%)	15.8 (0.3%)	-35.0 (0.6%)
Vic	0.7 (0.4%)	-1.9 (1.2%)	1.2 (0.3%)	-3.2 (0.8%)	11.6 (0.3%)	-30.1 (0.7%)
Qld	0.4 (0.3%)	-1.1 (0.8%)	1.1 (0.3%)	-2.9 (0.9%)	9.5 (0.3%)	-26.3 (0.7%)
SA	0.1 (0.3%)	-0.3 (0.6%)	0.2 (0.2%)	-0.6 (0.6%)	2.1 (0.2%)	-5.9 (0.4%)
WA	0.2 (0.4%)	0.5 (0.9%)	0.8 (0.5%)	1.8 (0.9%)	6.7 (0.4%)	16.5 (0.9%)
Tas	0.0 (0.2%)	-0.1 (0.6%)	0.1 (0.2%)	-0.2 (0.5%)	0.8 (0.2%)	-1.8 (0.4%)
NT	0.0 (0.6%)	-0.1 (1.3%)	0.1 (0.6%)	-0.2 (1.3%)	1.0 (0.6%)	-2.4 (1.4%)
ACT	0.0 (0.2%)	0.0 (0.5%)	0.0 (0.1%)	0.1 (0.3%)	0.3 (0.1%)	-0.7 (0.2%)

Any queries should be raised with the Labour Force in Canberra on (02) 6252 6525.

Tom Joseph
Assistant Statistician - Labour Branch
6 December 2012

Aggregate monthly hours worked

It was noted that this month aggregate monthly hours worked decreased while employment increased.

This is not unusual as the series are assembled independently i.e. different seasonality. Furthermore, it is plausible that while there has been an increase in employment (0.18% or 20 thousand), the people that are already employed (11.4 mil total, 8 mil FT and 3.4 PT) may have worked slightly less and therefore have a greater impact on the aggregate hours worked series.

QLD response rates and the impact on estimates

Analysis was undertaken to determine if the decline in the response rate for QLD had a significant and obvious impact on the estimates.

The non-contact proportion of the loss in sample for QLD is as follows:

- In the matched sample 158 households were not contacted.
- In the incoming rotation group 52 households were not contacted.

The following analysis was undertaken:

- The estimates from the matched sample were analysed and no obvious changes in this part of the sample were detected.
- The estimates from individuals who were part of the matched sample (i.e. minus incoming rotation group) but dropped out this month were analysed and no obvious differences were found from previous months.
- An analysis of the respondents that dropped out of sample was undertaken to determine if any regions were over-represented. No obvious bias was detected.
- The influence and contribution of each rotation group was analysed but no obvious irregularities were found.

In conclusion, we cannot be certain if and what the impact has been on the estimates until we enumerate those that were lost from the sample this month.

