



Unemployment and other measures of labour underutilisation

The headline measure of excess labour capacity in an economy is the number of unemployed persons. Such a measure, however, has its limitations. One major criticism of the count of unemployed persons is that a person need only work as little as an hour a week to be counted as employed, even if more time than this was spent in search of a job. Another criticism is that the unemployed represent only one form of excess labour capacity, and that consideration also needs to be given to the underemployed and the 'hidden unemployed'. A further concern is that the number of unemployed persons is a headcount measure only and does not measure the volume of labour sought by the unemployed.

This Research Note examines the definition of unemployment and its limitations. It also considers how these limitations can be overcome by using other measures of labour underutilisation produced by the Australian Bureau of Statistics (ABS).

Definition of unemployment

The official unemployment figures are those produced by the ABS in its monthly Labour Force Survey. Unemployed persons are defined by the ABS as those civilians aged 15 years and over who, during a period of one week (called the reference week), were not employed, but were available to start work in the reference week and had actively looked for work in the previous four weeks.

Since the definition of unemployment is framed in terms of people who are 'not employed', it is necessary to look also at the definition of employment. The ABS defines employed persons as those civilians aged 15 years and over who, during the reference week, worked for one hour or more, or had a job from which they were absent.¹ Work is defined as work for profit, commission or payment in kind, in a job, business or farm, or without pay in a family business or farm.

The requirement that a person only has to work an hour a week to be counted as employed creates a bias toward counting a person as employed, rather than as unemployed. However, this is a problem from a social rather than from an economic perspective. From an economic perspective, every hour of work contributes to

the production of goods and services and is therefore considered employment. The problem arises from a social perspective because not everyone who works one or a few hours a week is satisfied with their available hours.²

It should be noted that ABS definitions of employment and unemployment conform with International Labour Organisation (ILO) standards. The 'one hour criterion' in the definition of employment is considered fundamental to the ILO definition of unemployment, which refers to a situation of being completely without work.³

Changes that have affected the ABS definition of unemployment

The ABS Labour Force Survey commenced in 1960. While a number of changes have been made to the Survey since that time, the underlying conceptual basis for measuring employment and unemployment has remained essentially the same. Changes that have affected either the scope or definition of unemployment, are summarised below.

August 1966. Scope of the survey population was reduced from people aged 14 and over to people aged 15 and over.

May 1976. The definition of unemployment was revised to include persons who had actively looked for work in the last four weeks. Previously, they were required to have looked for work in the last week. The definition of unemployment also incorporated the requirement that a person must have been available to start work in the reference week. Previously, persons had been classified as unemployed even if they had not been available to start work in the reference week.

February 1978. The definition of unemployed persons looking for first job was revised to 'unemployed persons who had never worked full time for two weeks or more'. Previously the definition was 'unemployed persons who had never had a job'.

April 1986. The definition of employed persons was altered to include persons working 1 to 14 hours without pay in a family business or farm. This caused a significant break in the series, not only for employed

persons, but also for unemployed persons and related unemployment rates.

April 2001. Minor definitional changes were made to employment and unemployment relating to: short term absences; unavailability due to illness; and contributing family workers.

February 2004. The definition of unemployed persons was changed to include 'future starters'. Future starters are persons who had not actively looked for work because they were waiting to start a new job within four weeks from the end of the survey reference week, and could have started in the reference week if the job had been available then. These persons had previously been classified as not in the labour force.⁴

Underemployment and 'hidden unemployment'

Although persons who worked for as little as an hour a week are counted as employed, the ABS separately identifies and publishes figures on those persons who want, and are available for, more hours of work than they currently have. These persons are collectively referred to as the underemployed. They comprise both part-time workers who want to work more hours, and full-time workers who worked part-time hours for economic reasons (such as being stood down or insufficient work being available). The number of underemployed workers expressed as a percentage of the labour force is called the underemployment rate.

In addition to the underemployed, there is also a group of persons who are described as being marginally attached to the labour force. Sometimes referred to as the 'hidden unemployed', these are persons not in the labour force who were either actively looking for work, but were not available to start work in the reference week or, who were not actively looking for work, but were available to start work within four weeks. A sub-group of persons marginally attached to the labour force are those described as 'discouraged jobseekers'. These are persons who are available to start work within four weeks, but are not actively looking for work because they believe that no work is available for them.

Underutilisation rates

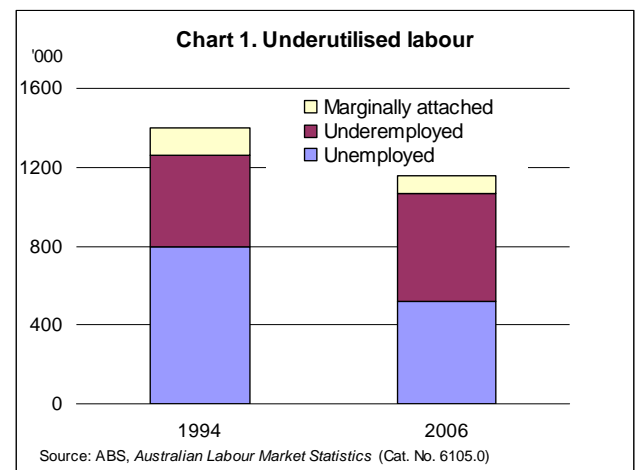
When the unemployed and underemployed are added together and expressed as a percentage of the labour force, the result is the labour force underutilisation rate. When the unemployed, underemployed and the following two groups of people marginally attached to the labour force:

(i) persons actively looking for work who were not available to start work in the reference week but were available to start work within four weeks; and

(ii) discouraged jobseekers;

are added together and expressed as a percentage of the labour force augmented by these two groups, the result is the extended labour force underutilisation rate.⁵

It is interesting to note that when the unemployed are considered along with the underemployed and the marginally attached, quite a different picture emerges concerning trends in the labour market. For example, the number of unemployed persons fell by 35 per cent between September 1994 and September 2006. The decrease was much less (at 17 per cent) when the underemployed and those persons marginally attached to the labour force are also taken into account. (Table 1 and Chart 1.)



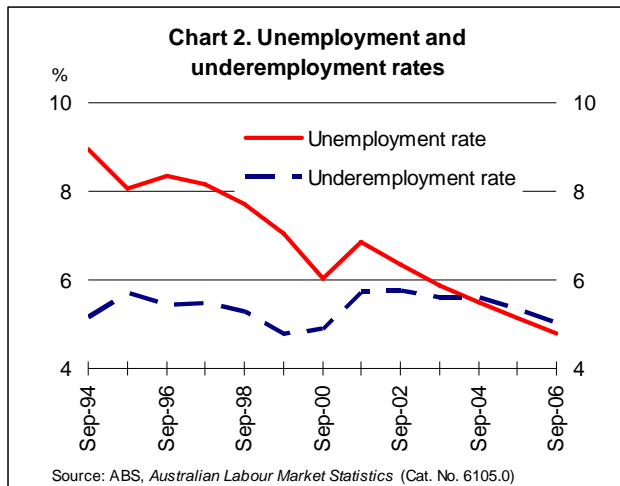
Whereas 4.8 per cent of the labour force was unemployed at September 2006, a further 5.0 per cent was underemployed, giving a combined labour force underutilisation rate of 9.8 per cent. In other words, despite the buoyant state of the labour market in 2006, almost one in ten persons who wanted and were available to work were either not working or working less hours than they would like. When those who were marginally attached to the labour force are also included, the extended labour force underutilisation rate rises to 10.6 per cent.

Despite the sharp fall in the unemployment rate between September 1994 and September 2006 (9.0 to 4.8 per cent), the underemployment rate has remained relatively flat over this time (Chart 2). It would seem, therefore, that while many people are finding work, a considerable number are not finding jobs with the number of hours they would like to work.

Table 1. Labour underutilisation

	Sep-94	Sep-95	Sep-96	Sep-97	Sep-98	Sep-99	Sep-00	Sep-01	Sep-02	Sep-03	Sep-04	Sep-05	Sep-06
HEADCOUNT MEASURES													
Unemployed ('000 persons)	798.8	734.9	768.1	759.4	731.2	671.9	585.9	678.4	636.4	596.3	569.6	546.7	520.6
Underemployed ('000 persons)	458.5	517.7	501.2	507.3	501.3	455.5	474.3	563.6	574.3	567.4	578.3	566.6	544.6
Labour force ('000 persons)	8 911.5	9 099.8	9 212.4	9 300.1	9 494.5	9 546.1	9 731.8	9 871.5	10 017.5	10 162.6	10 372.5	10 634.6	10 881.2
Marginally attached ('000 persons):													
Actively looking for work, not available in reference week, but available to start work within 4 weeks	38.4	32.8	34.7	35.7	33.2	45.5	42.0	45.1	43.9	39.4	46.6	51.0	37.3
Discouraged jobseekers	106.5	111.9	118.9	118.4	110.9	105.8	106.5	81.7	78.0	79.8	82.0	63.1	56.1
Total	144.9	144.7	153.6	154.1	144.2	151.3	148.5	126.8	121.9	119.2	128.6	114.1	93.4
Labour underutilisation rates:													
Unemployment rate	9.0	8.1	8.3	8.2	7.7	7.0	6.0	6.9	6.4	5.9	5.5	5.1	4.8
Underemployment rate	5.1	5.7	5.4	5.5	5.3	4.8	4.9	5.7	5.7	5.6	5.6	5.3	5.0
Labour force underutilisation rate	14.1	13.8	13.8	13.6	13.0	11.8	10.9	12.6	12.1	11.5	11.1	10.5	9.8
Extended labour force underutilisation rate	15.5	15.1	15.2	15.0	14.3	13.2	12.2	13.7	13.1	12.5	12.2	11.4	10.6
VOLUME MEASURES													
Unemployed ('000 hours)	na	na	na	na	na	na	na	na	19 519	18 747	17 042	16 453	15 399
Underemployed ('000 hours)	na	na	na	na	na	na	na	na	9 092	9 010	8 860	8 624	8 253
Labour force* ('000 hours)	na	na	na	na	na	na	na	na	372 783	376 646	383 489	393 024	401 239
Labour underutilisation rates:													
Unemployment rate	na	na	na	na	na	na	na	na	5.2	5.0	4.4	4.2	3.8
Underemployment rate	na	na	na	na	na	na	na	na	2.4	2.4	2.3	2.2	2.1
Labour force underutilisation rate	na	na	na	na	na	na	na	na	7.7	7.4	6.8	6.4	5.9

Source: Australian Bureau of Statistics, *Australian Labour Market Statistics* (Cat. No. 6105.0)



Despite their importance as an economic indicator, underemployment data are published only once a year by the ABS, unlike unemployment data which are published monthly. Clearly, a meaningful analysis of the labour market requires the timely publication of both sets of data.

Volume measures of labour underutilisation

Measures of labour force underutilisation, discussed so far, are headcount measures. They provide an indication of the proportion of the population that is affected by labour underutilisation. Another measure of labour underutilisation relates to the number of potential hours of labour that are not used. These 'volume' measures may be more relevant for analysing the spare capacity of the labour force than measures based on the number of people who are underutilised.⁶

The volume of underutilised labour in the labour force is derived by adding together the number of hours sought by unemployed people and the number of additional hours of work offered by underemployed workers. The volume labour force underutilisation rate is therefore calculated as the number of hours that are unutilised expressed as a percentage of the sum of utilised and unutilised hours in the labour force. Separate rates can also be calculated for the volume unemployment rate (the hours sought by unemployed persons as a percentage of the volume of potential labour), and the volume underemployment rate (the additional hours of labour offered by underemployed workers as a percentage of the volume of potential labour).⁷

Volume rates of underutilisation are considerably lower than the corresponding headcount rates. In September 2006, for example, the headcount and volume unemployment rates were 4.8 and 3.8 per cent respectively. The difference was even greater in the case of the headcount and volume underemployment rates which were 5.0 and 2.1 per cent respectively. Overall,

the labour force underutilisation rate on a headcount basis in September 2006 was 9.8 per cent, compared with 5.9 per cent on a volume basis. These differences reflect the fact that the number of hours sought by the unemployed and the number of extra hours sought by the underemployed are lower, on average, than the hours worked by employed people.

Conclusion

While the unemployment rate is the most commonly used measure of excess labour capacity, it is by no means a comprehensive measure. Another measure of the level of unused labour resources is one that takes into account both the underemployed and persons marginally attached to the labour force. When this is done, the level of excess labour capacity rises—in September 2006, from 4.8 per cent (the unemployment rate) to 9.8 per cent (the labour force underutilisation rate) to 10.6 per cent (the extended labour force underutilisation rate). Each of these measures is based on a headcount of individuals. A further measure, however, looks at the number of potential hours of labour not used. When this is done, the result is an unemployment rate (in September 2006) of 3.8 per cent and a labour force underutilisation rate of 5.9 per cent.

1. Employees who had a job from which they were absent for more than four weeks without pay are not counted by the ABS as employed.
2. Australian Bureau of Statistics, *Year Book Australia, 2006*, p. 165.
3. Australian Bureau of Statistics, *The Labour Force*, February 2001, (Cat. No. 6203.0), p. 5.
4. Australian Bureau of Statistics, *Labour Statistics: Concepts, Sources and Methods*, (Cat. No. 6102.0.55.001), Chapter 20.
5. Labour force underutilisation rates have been compiled by the ABS on an annual basis back to 1994.
6. Australian Bureau of Statistics, *Year Book Australia, 2006*, p. 182.
7. *ibid.*

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