



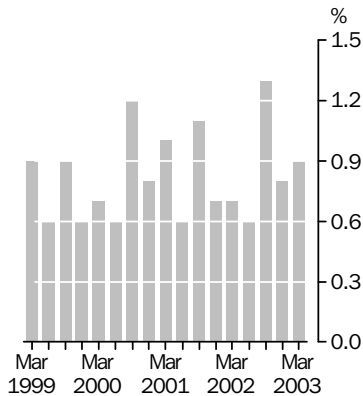
# WAGE COST INDEX

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) WED 21 MAY 2003

## Quarterly percentage change

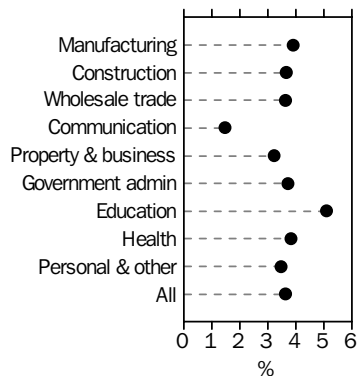
Total hourly rates of pay excluding bonuses



## Annual percentage change

For selected industries

Total hourly rates of pay excluding bonuses



- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Tim Landrigan on Perth 08 9360 5151.

## KEY FIGURES

	Dec Qtr 2002 to Mar Qtr 2003 % change	Mar Qtr 2002 to Mar Qtr 2003 % change
<b>Total hourly rates of pay excluding bonuses</b>		
Australia	0.9	3.6
Sector		
Private sector	0.7	3.5
Public sector	1.7	4.0
States and Territories		
New South Wales	1.4	3.9
Victoria	0.6	3.7
Queensland	0.9	3.3
South Australia	0.5	3.7
Western Australia	0.8	3.7
Tasmania	0.3	3.1
Northern Territory	1.2	3.1
Australian Capital Territory	1.0	3.8

## KEY POINTS

### INDEXES OF TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES

#### QUARTERLY CHANGES (DEC QTR 2002 TO MAR QTR 2003)

- The index of total hourly rates of pay excluding bonuses for all employee jobs in Australia increased by 0.9%.
- The increases in the indexes at the industry level ranged from 0.3% for Communication services, to 1.8% for Health and community services.
- The increases in the indexes at the occupation level ranged from 0.5% for Intermediate production and transportation workers, to 1.2% for Professionals.

#### ANNUAL CHANGES (MAR QTR 2002 TO MAR QTR 2003)

- The index of total hourly rates of pay excluding bonuses for all employee jobs in Australia increased by 3.6%.
- The increases in the indexes at the industry level ranged from 1.5% for Communication services, to 5.1% for Education.

## NOTES

### FORTHCOMING ISSUES

*ISSUE (Quarter)*

*RELEASE DATE*

June 2003

13 August 2003

September 2003

12 November 2003



### CHANGES IN THIS ISSUE

A graph showing the Annual Percentage Change for selected industries is included on the front of the publication.

### ABS DATA AVAILABLE ON REQUEST

Indexes are compiled for various combinations of state/territory, sector (private/public), broad industry group and broad occupation group. Indexes not included in this publication may be made available on request by telephoning Perth (08) 9360 5151.

### FURTHER INFORMATION

More detailed information on the Wage Cost Index is available in *Information Paper: Wage Cost Index, Australia, 2000* (cat. no. 6346.0).

Susan Linacre

Acting Australian Statistician

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## COMMENTARY

### OVERALL

- The annual (quarter on corresponding quarter of the preceding year) movement in the index of total hourly rates of pay excluding bonuses increased slightly to 3.6% in the March quarter 2003, compared with an increase of 3.4% in December quarter 2002.
- The 2003 Safety Net Review decision was handed down by the Australian Industrial Relations Commission on 6 May 2003. As the decision was handed down only two weeks prior to June quarter's reference date for the Wage Cost Index, it is unlikely that it will impact significantly on the June quarter WCI.

### INFLUENCING THE INDEX

The following factors have had the greatest influence on the index this quarter.

#### *Public Sector*

- The annual movement of 4.0% is the highest since the start of the series in September quarter 1997.
- Award increases have had a greater impact this quarter. Historically, CA-based pay increases provide most of the pay movements each quarter.
- In the March quarter 2003 NSW public sector increased by 3.1%

#### *Education*

- The 5.1% increase in March quarter 2003 is the largest annual movement recorded in this industry.

### EXPERIMENTAL SEASONALLY ADJUSTED ESTIMATES

(See Appendix 2)

- This is the fourth quarter that these estimates have been published.
- The estimates are classified as 'experimental' because the seasonal patterns have been estimated on the basis of a relatively short time series (currently 23 quarters).
- The ABS will continue to monitor these series with a view to removing the 'experimental' label as soon as it is possible to do so.

The public sector quarterly increase of 1.7% in original terms in March quarter 2003 is estimated to be 1.3% seasonally adjusted, based on the experimental series.

The corresponding increases for the private sector are 0.7% (original) and 0.8% (experimental seasonally adjusted).

The original and seasonally adjusted quarterly increases for all sectors are the same at 0.9%.

## TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Australia</i>
INDEX NUMBERS (a)									
<b>1998-99</b>	104.7	104.2	104.2	104.1	104.4	103.5	104.2	103.7	<b>104.4</b>
<b>1999-2000</b>	107.9	107.2	107.3	107.1	107.1	106.2	106.8	106.3	<b>107.4</b>
<b>2000-01</b>	111.9	110.8	110.6	110.5	110.9	109.2	109.8	110.1	<b>111.1</b>
<b>2001-02</b>	115.6	114.7	114.2	114.1	114.5	112.6	113.2	113.5	<b>114.8</b>
<b>2000</b>									
March	108.2	107.6	107.6	107.4	107.5	106.5	107.2	106.6	<b>107.7</b>
June	109.0	108.3	108.0	108.1	108.0	106.9	107.5	107.0	<b>108.4</b>
September	110.7	109.4	109.0	109.1	109.3	108.1	108.6	108.9	<b>109.7</b>
December	111.3	110.4	110.3	110.1	110.0	108.9	109.9	109.8	<b>110.6</b>
<b>2001</b>									
March	112.5	111.2	111.2	111.1	111.8	109.5	110.3	110.6	<b>111.7</b>
June	113.1	112.2	111.9	111.6	112.5	110.3	110.5	111.0	<b>112.4</b>
September	114.5	113.6	113.0	112.6	113.2	111.5	111.6	112.6	<b>113.6</b>
December	115.2	114.2	113.9	113.9	114.0	112.1	113.3	113.3	<b>114.4</b>
<b>2002</b>									
March	116.1	115.0	114.6	114.8	114.9	113.1	113.9	113.8	<b>115.2</b>
June	116.6	116.0	115.2	115.2	115.7	113.7	114.1	114.3	<b>115.9</b>
September	118.2	117.6	116.3	116.9	117.6	115.0	115.6	116.0	<b>117.4</b>
December	118.9	118.5	117.4	118.5	118.2	116.2	116.0	116.9	<b>118.3</b>
<b>2003</b>									
March	120.6	119.2	118.4	119.1	119.2	116.6	117.4	118.1	<b>119.4</b>
CHANGE FROM PREVIOUS FINANCIAL YEAR (%)									
<b>1999-2000</b>	3.1	2.9	3.0	2.9	2.6	2.6	2.5	2.5	<b>2.9</b>
<b>2000-01</b>	3.7	3.4	3.1	3.2	3.5	2.8	2.8	3.6	<b>3.4</b>
<b>2001-02</b>	3.3	3.5	3.3	3.3	3.2	3.1	3.1	3.1	<b>3.3</b>
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)									
<b>2001</b>									
March	4.0	3.3	3.3	3.4	4.0	2.8	2.9	3.8	<b>3.7</b>
June	3.8	3.6	3.6	3.2	4.2	3.2	2.8	3.7	<b>3.7</b>
September	3.4	3.8	3.7	3.2	3.6	3.1	2.8	3.4	<b>3.6</b>
December	3.5	3.4	3.3	3.5	3.6	2.9	3.1	3.2	<b>3.4</b>
<b>2002</b>									
March	3.2	3.4	3.1	3.3	2.8	3.3	3.3	2.9	<b>3.1</b>
June	3.1	3.4	2.9	3.2	2.8	3.1	3.3	3.0	<b>3.1</b>
September	3.2	3.5	2.9	3.8	3.9	3.1	3.6	3.0	<b>3.3</b>
December	3.2	3.8	3.1	4.0	3.7	3.7	2.4	3.2	<b>3.4</b>
<b>2003</b>									
March	3.9	3.7	3.3	3.7	3.7	3.1	3.1	3.8	<b>3.6</b>
CHANGE FROM PREVIOUS QUARTER (%)									
<b>2001</b>									
March	1.1	0.7	0.8	0.9	1.6	0.6	0.4	0.7	<b>1.0</b>
June	0.5	0.9	0.6	0.5	0.6	0.7	0.2	0.4	<b>0.6</b>
September	1.2	1.2	1.0	0.9	0.6	1.1	1.0	1.4	<b>1.1</b>
December	0.6	0.5	0.8	1.2	0.7	0.5	1.5	0.6	<b>0.7</b>
<b>2002</b>									
March	0.8	0.7	0.6	0.8	0.8	0.9	0.5	0.4	<b>0.7</b>
June	0.4	0.9	0.5	0.3	0.7	0.5	0.2	0.4	<b>0.6</b>
September	1.4	1.4	1.0	1.5	1.6	1.1	1.3	1.5	<b>1.3</b>
December	0.6	0.8	0.9	1.4	0.5	1.0	0.3	0.8	<b>0.8</b>
<b>2003</b>									
March	1.4	0.6	0.9	0.5	0.8	0.3	1.2	1.0	<b>0.9</b>

(a) Reference base of each index: September quarter 1997=100.0.

TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES,  
Private Sector

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
INDEX NUMBERS (a)									
<b>1998-99</b>	104.2	104.1	104.1	104.2	104.6	103.6	103.6	103.3	<b>104.2</b>
<b>1999-2000</b>	107.4	107.2	106.8	106.9	107.1	106.2	106.0	106.8	<b>107.1</b>
<b>2000-01</b>	111.5	110.8	110.1	110.1	111.1	108.9	109.1	111.1	<b>110.9</b>
<b>2001-02</b>	115.2	114.6	113.4	113.5	114.7	112.0	112.3	114.6	<b>114.5</b>
<b>2000</b>									
March	107.7	107.6	107.1	107.3	107.5	106.5	106.2	107.2	<b>107.5</b>
June	108.5	108.3	107.5	107.8	108.0	106.8	106.8	107.8	<b>108.1</b>
September	110.3	109.5	108.6	108.9	109.5	107.8	108.3	110.1	<b>109.5</b>
December	111.0	110.5	109.8	109.8	110.2	108.7	109.0	110.7	<b>110.4</b>
<b>2001</b>									
March	112.0	111.1	110.7	110.5	111.9	109.3	109.5	111.6	<b>111.4</b>
June	112.7	112.1	111.1	111.0	112.8	109.8	109.7	112.1	<b>112.1</b>
September	114.2	113.6	112.1	112.2	113.4	111.0	111.3	113.6	<b>113.4</b>
December	114.9	114.2	113.1	113.1	114.2	111.7	112.1	114.2	<b>114.1</b>
<b>2002</b>									
March	115.6	114.9	113.9	114.1	115.1	112.4	112.7	115.0	<b>114.9</b>
June	116.2	115.8	114.4	114.6	115.9	112.9	113.1	115.6	<b>115.6</b>
September	117.9	117.5	115.4	116.3	117.8	114.4	114.9	117.2	<b>117.2</b>
December	118.7	118.4	116.8	117.7	118.5	115.5	115.4	117.8	<b>118.1</b>
<b>2003</b>									
March	119.7	119.0	117.5	118.4	119.2	115.9	116.1	118.9	<b>118.9</b>
CHANGE FROM PREVIOUS FINANCIAL YEAR (%)									
<b>1999-2000</b>	3.1	3.0	2.6	2.6	2.4	2.5	2.3	3.4	<b>2.8</b>
<b>2000-01</b>	3.8	3.4	3.1	3.0	3.7	2.5	2.9	4.0	<b>3.5</b>
<b>2001-02</b>	3.3	3.4	3.0	3.1	3.2	2.8	2.9	3.2	<b>3.2</b>
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)									
<b>2001</b>									
March	4.0	3.3	3.4	3.0	4.1	2.6	3.1	4.1	<b>3.6</b>
June	3.9	3.5	3.3	3.0	4.4	2.8	2.7	4.0	<b>3.7</b>
September	3.5	3.7	3.2	3.0	3.6	3.0	2.8	3.2	<b>3.6</b>
December	3.5	3.3	3.0	3.0	3.6	2.8	2.8	3.2	<b>3.4</b>
<b>2002</b>									
March	3.2	3.4	2.9	3.3	2.9	2.8	2.9	3.0	<b>3.1</b>
June	3.1	3.3	3.0	3.2	2.7	2.8	3.1	3.1	<b>3.1</b>
September	3.2	3.4	2.9	3.7	3.9	3.1	3.2	3.2	<b>3.4</b>
December	3.3	3.7	3.3	4.1	3.8	3.4	2.9	3.2	<b>3.5</b>
<b>2003</b>									
March	3.5	3.6	3.2	3.8	3.6	3.1	3.0	3.4	<b>3.5</b>
CHANGE FROM PREVIOUS QUARTER (%)									
<b>2001</b>									
March	0.9	0.5	0.8	0.6	1.5	0.6	0.5	0.8	<b>0.9</b>
June	0.6	0.9	0.4	0.5	0.8	0.5	0.2	0.4	<b>0.6</b>
September	1.3	1.3	0.9	1.1	0.5	1.1	1.5	1.3	<b>1.2</b>
December	0.6	0.5	0.9	0.8	0.7	0.6	0.7	0.5	<b>0.6</b>
<b>2002</b>									
March	0.6	0.6	0.7	0.9	0.8	0.6	0.5	0.7	<b>0.7</b>
June	0.5	0.8	0.4	0.4	0.7	0.4	0.4	0.5	<b>0.6</b>
September	1.5	1.5	0.9	1.5	1.6	1.3	1.6	1.4	<b>1.4</b>
December	0.7	0.8	1.2	1.2	0.6	1.0	0.4	0.5	<b>0.8</b>
<b>2003</b>									
March	0.8	0.5	0.6	0.6	0.6	0.3	0.6	0.9	<b>0.7</b>

(a) Reference base of each index: September quarter 1997=100.0.

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## TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES, Public sector

Period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
INDEX NUMBERS (a)									
<b>1998-99</b>	106.7	104.3	104.5	103.9	103.8	103.3	105.3	103.9	<b>105.0</b>
<b>1999-2000</b>	109.7	107.1	108.5	107.6	106.9	106.3	108.2	106.0	<b>108.2</b>
<b>2000-01</b>	113.4	110.9	112.2	111.6	110.2	109.8	111.0	109.4	<b>111.9</b>
<b>2001-02</b>	116.9	115.1	116.4	115.9	113.8	113.8	114.8	112.8	<b>115.7</b>
<b>2000</b>									
March	109.9	107.6	108.9	107.8	107.6	106.5	108.7	106.3	<b>108.5</b>
June	110.7	108.0	109.3	109.0	107.8	107.0	108.9	106.6	<b>109.1</b>
September	112.1	109.2	110.3	109.8	108.5	108.7	109.2	108.2	<b>110.3</b>
December	112.7	110.0	111.5	110.9	109.4	109.3	111.5	109.1	<b>111.2</b>
<b>2001</b>									
March	114.1	111.7	112.9	112.7	111.2	109.8	111.7	110.0	<b>112.6</b>
June	114.5	112.7	114.2	113.0	111.5	111.2	111.7	110.3	<b>113.3</b>
September	115.6	113.6	115.6	113.8	112.5	112.5	112.1	112.0	<b>114.4</b>
December	116.1	114.1	115.9	116.1	113.4	112.9	115.5	112.7	<b>115.1</b>
<b>2002</b>									
March	117.9	115.6	116.5	116.8	114.5	114.5	115.8	113.1	<b>116.4</b>
June	118.0	116.9	117.5	116.9	114.9	115.1	115.9	113.5	<b>116.9</b>
September	119.1	118.1	118.7	118.5	116.7	116.3	116.7	115.2	<b>118.2</b>
December	120.0	119.2	119.0	120.4	117.3	117.6	117.1	116.4	<b>119.1</b>
<b>2003</b>									
March	123.7	120.0	120.8	120.8	119.1	117.8	119.4	117.6	<b>121.1</b>
CHANGE FROM PREVIOUS FINANCIAL YEAR (%)									
<b>1999-2000</b>	2.8	2.7	3.8	3.6	3.0	2.9	2.8	2.0	<b>3.0</b>
<b>2000-01</b>	3.4	3.5	3.4	3.7	3.1	3.3	2.6	3.2	<b>3.4</b>
<b>2001-02</b>	3.1	3.8	3.7	3.9	3.3	3.6	3.4	3.1	<b>3.4</b>
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)									
<b>2001</b>									
March	3.8	3.8	3.7	4.5	3.3	3.1	2.8	3.5	<b>3.8</b>
June	3.4	4.4	4.5	3.7	3.4	3.9	2.6	3.5	<b>3.8</b>
September	3.1	4.0	4.8	3.6	3.7	3.5	2.7	3.5	<b>3.7</b>
December	3.0	3.7	3.9	4.7	3.7	3.3	3.6	3.3	<b>3.5</b>
<b>2002</b>									
March	3.3	3.5	3.2	3.6	3.0	4.3	3.7	2.8	<b>3.4</b>
June	3.1	3.7	2.9	3.5	3.0	3.5	3.8	2.9	<b>3.2</b>
September	3.0	4.0	2.7	4.1	3.7	3.4	4.1	2.9	<b>3.3</b>
December	3.4	4.5	2.7	3.7	3.4	4.2	1.4	3.3	<b>3.5</b>
<b>2003</b>									
March	4.9	3.8	3.7	3.4	4.0	2.9	3.1	4.0	<b>4.0</b>
CHANGE FROM PREVIOUS QUARTER (%)									
<b>2001</b>									
March	1.2	1.5	1.3	1.6	1.6	0.5	0.2	0.8	<b>1.3</b>
June	0.4	0.9	1.2	0.3	0.3	1.3	0.0	0.3	<b>0.6</b>
September	1.0	0.8	1.2	0.7	0.9	1.2	0.4	1.5	<b>1.0</b>
December	0.4	0.4	0.3	2.0	0.8	0.4	3.0	0.6	<b>0.6</b>
<b>2002</b>									
March	1.6	1.3	0.5	0.6	1.0	1.4	0.3	0.4	<b>1.1</b>
June	0.1	1.1	0.9	0.1	0.3	0.5	0.1	0.4	<b>0.4</b>
September	0.9	1.0	1.0	1.4	1.6	1.0	0.7	1.5	<b>1.1</b>
December	0.8	0.9	0.3	1.6	0.5	1.1	0.3	1.0	<b>0.8</b>
<b>2003</b>									
March	3.1	0.7	1.5	0.3	1.5	0.2	2.0	1.0	<b>1.7</b>

(a) Reference base of each index: September quarter 1997=100.0.

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TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES,  
Sector by Industry—Index numbers(a)

Industry	FINANCIAL YEAR				QUARTER				
	1998-99	1999-2000	2000-01	2001-02	Mar Qtr 2002	Jun Qtr 2002	Sep Qtr 2002	Dec Qtr 2002	Mar Qtr 2003
PRIVATE									
Mining	103.7	106.4	109.6	113.4	114.2	114.8	116.5	117.4	117.9
Manufacturing	104.8	107.8	111.6	115.4	115.7	116.6	118.2	119.3	120.1
Electricity, gas and water supply	104.5	108.1	111.3	116.3	116.5	117.8	119.7	120.5	120.8
Construction	105.0	108.1	112.8	116.7	117.3	117.7	119.6	120.1	121.5
Wholesale trade	103.5	106.2	110.0	113.1	113.2	114.1	116.0	116.7	117.3
Retail trade	103.3	105.7	108.5	111.2	111.6	112.2	113.7	114.5	115.2
Accommodation, cafes and restaurants	103.3	105.7	109.1	112.2	112.6	113.0	114.7	116.0	116.8
Transport and storage	103.7	106.4	109.3	112.1	112.4	112.8	113.8	115.3	116.3
Communication services	102.9	107.3	111.1	116.1	116.2	116.4	118.5	118.7	119.2
Finance and insurance	105.0	108.5	112.5	117.0	117.6	118.5	119.3	120.9	121.4
Property and business services	104.4	108.4	113.2	117.1	117.4	118.1	120.1	120.7	121.3
Education	103.8	107.2	111.2	115.1	115.3	116.4	118.0	118.4	120.6
Health and community services	104.2	106.5	109.4	113.4	113.9	114.4	115.7	116.6	117.4
Cultural and recreational services	103.2	105.2	108.8	112.5	113.1	113.7	115.2	116.4	117.7
Personal and other services	102.8	105.6	108.7	113.0	113.3	114.1	115.2	116.0	116.7
<i>All industries</i>	<i>104.2</i>	<i>107.1</i>	<i>110.9</i>	<i>114.5</i>	<i>114.9</i>	<i>115.6</i>	<i>117.2</i>	<i>118.1</i>	<i>118.9</i>
PUBLIC									
Government administration and defence	104.7	107.8	111.1	114.8	115.4	115.6	116.8	118.1	119.7
Education	105.3	108.0	112.0	116.6	116.6	118.1	120.2	121.0	122.8
Health and community services	106.4	109.7	113.1	116.6	117.4	117.9	118.4	119.0	122.7
Cultural and recreational services	105.1	107.3	110.3	113.2	113.7	113.9	115.6	116.5	117.7
Personal and other services	105.5	109.5	113.1	116.6	118.0	118.2	119.6	120.0	122.6
<i>All industries(b)</i>	<i>105.0</i>	<i>108.2</i>	<i>111.9</i>	<i>115.7</i>	<i>116.4</i>	<i>116.9</i>	<i>118.2</i>	<i>119.1</i>	<i>121.1</i>
PRIVATE AND PUBLIC									
Mining	103.7	106.4	109.6	113.3	114.1	114.8	116.5	117.4	117.9
Manufacturing	104.8	107.8	111.6	115.4	115.6	116.6	118.2	119.3	120.1
Electricity, gas and water supply	104.6	108.7	112.9	117.8	118.7	119.1	121.0	122.3	123.3
Construction	105.1	108.2	112.9	116.6	117.1	117.5	119.2	119.9	121.4
Wholesale trade	103.5	106.2	110.0	113.1	113.2	114.1	116.0	116.7	117.3
Retail trade	103.3	105.7	108.5	111.3	111.7	112.2	113.7	114.6	115.2
Accommodation, cafes and restaurants	103.3	105.7	109.1	112.2	112.6	113.0	114.7	116.0	116.7
Transport and storage	103.7	106.4	109.7	112.6	112.9	113.5	114.5	115.9	117.2
Communication services	102.9	107.0	110.6	114.6	115.8	115.8	116.4	117.1	117.5
Finance and insurance	105.0	108.5	112.4	116.8	117.4	118.2	119.0	120.6	121.3
Property and business services	104.5	108.5	113.2	117.1	117.5	118.1	120.1	120.7	121.3
Government administration and defence	104.7	107.8	111.1	114.8	115.4	115.6	116.8	118.1	119.7
Education	104.8	107.7	111.8	116.1	116.2	117.5	119.5	120.2	122.1
Health and community services	105.2	107.9	111.0	114.8	115.4	115.9	116.9	117.7	119.8
Cultural and recreational services	103.8	105.9	109.3	112.7	113.3	113.7	115.4	116.5	117.7
Personal and other services	104.0	107.3	110.6	114.6	115.4	115.9	117.1	117.8	119.4
<b>All industries</b>	<b>104.4</b>	<b>107.4</b>	<b>111.1</b>	<b>114.8</b>	<b>115.2</b>	<b>115.9</b>	<b>117.4</b>	<b>118.3</b>	<b>119.4</b>

(a) Reference base of each index: September quarter 1997=100.0.

(b) Includes those industries not separately listed.



## 5

TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES,  
Sector by Industry—Percentage Changes

Industry	FROM PREVIOUS FINANCIAL YEAR			FROM CORRESPONDING QUARTER OF PREVIOUS YEAR			FROM PREVIOUS QUARTER			
	1999–2000	2000–01	2001–02	Mar	Mar	Mar	Jun	Sep	Dec	Mar
				Qtr	Qtr	Qtr	Qtr	Qtr	Qtr	Qtr
				2001	2002	2003	2002	2002	2002	2003
PRIVATE										
Mining	2.6	3.0	3.5	3.3	3.6	3.2	0.5	1.5	0.8	0.4
Manufacturing	2.9	3.5	3.4	3.9	3.0	3.8	0.8	1.4	0.9	0.7
Electricity, gas and water supply	3.4	3.0	4.5	3.0	4.3	3.7	1.1	1.6	0.7	0.2
Construction	3.0	4.3	3.5	4.2	3.6	3.6	0.3	1.6	0.4	1.2
Wholesale trade	2.6	3.6	2.8	3.5	2.6	3.6	0.8	1.7	0.6	0.5
Retail trade	2.3	2.6	2.5	2.5	2.6	3.2	0.5	1.3	0.7	0.6
Accommodation, cafes and restaurants	2.3	3.2	2.8	3.2	2.9	3.7	0.4	1.5	1.1	0.7
Transport and storage	2.6	2.7	2.6	3.0	2.4	3.5	0.4	0.9	1.3	0.9
Communication services	4.3	3.5	4.5	3.7	3.9	2.6	0.2	1.8	0.2	0.4
Finance and insurance	3.3	3.7	4.0	3.9	4.0	3.2	0.8	0.7	1.3	0.4
Property and business services	3.8	4.4	3.4	4.8	3.1	3.3	0.6	1.7	0.5	0.5
Education	3.3	3.7	3.5	3.7	3.3	4.6	1.0	1.4	0.3	1.9
Health and community services	2.2	2.7	3.7	2.7	3.9	3.1	0.4	1.1	0.8	0.7
Cultural and recreational services	1.9	3.4	3.4	3.8	3.1	4.1	0.5	1.3	1.0	1.1
Personal and other services	2.7	2.9	4.0	3.4	3.8	3.0	0.7	1.0	0.7	0.6
<i>All industries</i>	2.8	3.5	3.2	3.6	3.1	3.5	0.6	1.4	0.8	0.7
PUBLIC										
Government administration and defence	3.0	3.1	3.3	3.4	3.3	3.7	0.2	1.0	1.1	1.4
Education	2.6	3.7	4.1	4.3	3.4	5.3	1.3	1.8	0.7	1.5
Health and community services	3.1	3.1	3.1	3.6	3.3	4.5	0.4	0.4	0.5	3.1
Cultural and recreational services	2.1	2.8	2.6	3.0	2.8	3.5	0.2	1.5	0.8	1.0
Personal and other services	3.8	3.3	3.1	3.0	3.9	3.9	0.2	1.2	0.3	2.2
<i>All industries(a)</i>	3.0	3.4	3.4	3.8	3.4	4.0	0.4	1.1	0.8	1.7
PRIVATE AND PUBLIC										
Mining	2.6	3.0	3.4	3.2	3.6	3.3	0.6	1.5	0.8	0.4
Manufacturing	2.9	3.5	3.4	3.9	2.9	3.9	0.9	1.4	0.9	0.7
Electricity, gas and water supply	3.9	3.9	4.3	3.7	4.6	3.9	0.3	1.6	1.1	0.8
Construction	2.9	4.3	3.3	4.1	3.4	3.7	0.3	1.4	0.6	1.3
Wholesale trade	2.6	3.6	2.8	3.5	2.6	3.6	0.8	1.7	0.6	0.5
Retail trade	2.3	2.6	2.6	2.6	2.6	3.1	0.4	1.3	0.8	0.5
Accommodation, cafes and restaurants	2.3	3.2	2.8	3.2	2.9	3.6	0.4	1.5	1.1	0.6
Transport and storage	2.6	3.1	2.6	3.5	2.4	3.8	0.5	0.9	1.2	1.1
Communication services	4.0	3.4	3.6	3.9	3.3	1.5	0.0	0.5	0.6	0.3
Finance and insurance	3.3	3.6	3.9	3.7	4.0	3.3	0.7	0.7	1.3	0.6
Property and business services	3.8	4.3	3.4	4.8	3.2	3.2	0.5	1.7	0.5	0.5
Government administration and defence	3.0	3.1	3.3	3.4	3.3	3.7	0.2	1.0	1.1	1.4
Education	2.8	3.8	3.8	4.2	3.4	5.1	1.1	1.7	0.6	1.6
Health and community services	2.6	2.9	3.4	3.1	3.6	3.8	0.4	0.9	0.7	1.8
Cultural and recreational services	2.0	3.2	3.1	3.4	3.1	3.9	0.4	1.5	1.0	1.0
Personal and other services	3.2	3.1	3.6	3.2	3.8	3.5	0.4	1.0	0.6	1.4
<b>All industries</b>	<b>2.9</b>	<b>3.4</b>	<b>3.3</b>	<b>3.7</b>	<b>3.1</b>	<b>3.6</b>	<b>0.6</b>	<b>1.3</b>	<b>0.8</b>	<b>0.9</b>

(a) Includes those industries not separately listed.

## 6

TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES,  
Sector by Occupation—Index numbers(a)

Occupation	FINANCIAL YEAR				QUARTER				
	1998-99	1999-2000	2000-01	2001-02	Mar Qtr 2002	Jun Qtr 2002	Sep Qtr 2002	Dec Qtr 2002	Mar Qtr 2003
	PRIVATE								
Managers and administrators	104.9	108.2	112.2	116.0	116.2	117.3	118.8	119.8	120.3
Professionals	104.8	107.9	112.2	116.5	116.8	117.6	119.3	120.3	121.3
Associate professionals	104.0	106.9	110.9	114.3	114.7	115.5	116.6	117.5	118.3
Tradepersons and related workers	104.4	107.2	110.8	114.4	114.8	115.3	117.2	118.0	119.0
Advanced clerical and service workers	104.1	106.9	110.3	113.0	113.3	113.8	115.0	116.2	116.9
Intermediate clerical, sales and service workers	103.4	106.3	109.6	113.0	113.4	114.1	115.7	116.8	117.5
Intermediate production and transport workers	104.1	106.6	110.0	113.3	113.8	114.2	115.7	116.8	117.3
Elementary clerical, sales and service workers	103.2	105.6	109.0	111.8	111.9	112.8	114.3	115.3	116.2
Labourers and related workers	103.9	106.5	109.8	113.2	113.7	114.2	115.8	116.9	117.5
<i>All occupations</i>	<i>104.2</i>	<i>107.1</i>	<i>110.9</i>	<i>114.5</i>	<i>114.9</i>	<i>115.6</i>	<i>117.2</i>	<i>118.1</i>	<i>118.9</i>
PUBLIC									
Managers and administrators	104.7	107.9	111.6	115.1	115.6	116.0	117.4	118.3	120.9
Professionals	105.2	108.1	112.0	116.4	116.7	117.8	119.3	120.2	122.4
Associate professionals	105.2	108.8	112.5	116.1	117.1	117.4	118.6	119.3	121.3
Tradepersons and related workers	104.4	108.0	111.8	115.7	116.5	116.9	118.1	119.3	120.6
Advanced clerical and service workers	106.6	109.3	112.4	116.1	117.0	117.2	118.4	119.5	121.2
Intermediate clerical, sales and service workers	105.0	108.3	111.6	115.0	115.7	116.0	116.9	117.9	119.8
Intermediate production and transport workers	104.6	107.4	110.9	114.6	115.3	116.2	117.1	118.4	120.4
Elementary clerical, sales and service workers	105.0	109.1	112.0	115.6	116.8	117.0	117.3	118.0	119.2
Labourers and related workers	106.4	109.6	113.0	116.4	116.9	117.5	118.2	119.8	121.7
<i>All occupations</i>	<i>105.0</i>	<i>108.2</i>	<i>111.9</i>	<i>115.7</i>	<i>116.4</i>	<i>116.9</i>	<i>118.2</i>	<i>119.1</i>	<i>121.1</i>
PRIVATE AND PUBLIC									
Managers and administrators	104.8	108.2	112.1	115.8	116.1	117.1	118.5	119.5	120.5
Professionals	104.9	108.0	112.1	116.5	116.8	117.7	119.3	120.2	121.7
Associate professionals	104.4	107.4	111.3	114.8	115.4	116.0	117.2	118.0	119.2
Tradepersons and related workers	104.4	107.3	110.9	114.6	115.0	115.6	117.3	118.1	119.2
Advanced clerical and service workers	104.5	107.2	110.6	113.4	113.8	114.2	115.4	116.6	117.5
Intermediate clerical, sales and service workers	103.8	106.8	110.1	113.5	113.9	114.6	116.0	117.0	118.0
Intermediate production and transport workers	104.1	106.7	110.1	113.4	113.9	114.4	115.8	117.0	117.6
Elementary clerical, sales and service workers	103.6	106.3	109.7	112.6	112.9	113.7	114.9	115.9	116.8
Labourers and related workers	104.3	106.9	110.2	113.6	114.2	114.7	116.1	117.3	118.0
<b>All occupations</b>	<b>104.4</b>	<b>107.4</b>	<b>111.1</b>	<b>114.8</b>	<b>115.2</b>	<b>115.9</b>	<b>117.4</b>	<b>118.3</b>	<b>119.4</b>

(a) Reference base of each index: September quarter 1997=100.0.

# 7

## TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES, Sector by Occupation—Percentage Changes

Occupation	FROM PREVIOUS FINANCIAL YEAR			FROM CORRESPONDING QUARTER OF PREVIOUS YEAR			FROM PREVIOUS QUARTER			
	1999-2000	2000-01	2001-02	Mar Qtr 2001	Mar Qtr 2002	Mar Qtr 2003	Jun Qtr 2002	Sep Qtr 2002	Dec Qtr 2002	Mar Qtr 2003
PRIVATE										
Managers and administrators	3.1	3.7	3.4	4.1	2.9	3.5	0.9	1.3	0.8	0.4
Professionals	3.0	4.0	3.8	4.4	3.5	3.9	0.7	1.4	0.8	0.8
Associate professionals	2.8	3.7	3.1	3.7	3.1	3.1	0.7	1.0	0.8	0.7
Tradepersons and related workers	2.7	3.4	3.2	3.4	3.1	3.7	0.4	1.6	0.7	0.8
Advanced clerical and service workers	2.7	3.2	2.4	3.6	2.3	3.2	0.4	1.1	1.0	0.6
Intermediate clerical, sales and service workers	2.8	3.1	3.1	2.9	3.3	3.6	0.6	1.4	1.0	0.6
Intermediate production and transport workers	2.4	3.2	3.0	3.4	3.0	3.1	0.4	1.3	1.0	0.4
Elementary clerical, sales and service workers	2.3	3.2	2.6	3.3	2.3	3.8	0.8	1.3	0.9	0.8
Labourers and related workers	2.5	3.1	3.1	3.3	3.1	3.3	0.4	1.4	0.9	0.5
<i>All occupations</i>	2.8	3.5	3.2	3.6	3.1	3.5	0.6	1.4	0.8	0.7
PUBLIC										
Managers and administrators	3.1	3.4	3.1	3.6	3.1	4.6	0.3	1.2	0.8	2.2
Professionals	2.8	3.6	3.9	4.2	3.5	4.9	0.9	1.3	0.8	1.8
Associate professionals	3.4	3.4	3.2	3.6	3.4	3.6	0.3	1.0	0.6	1.7
Tradepersons and related workers	3.4	3.5	3.5	3.6	3.6	3.5	0.3	1.0	1.0	1.1
Advanced clerical and service workers	2.5	2.8	3.3	3.3	3.4	3.6	0.2	1.0	0.9	1.4
Intermediate clerical, sales and service workers	3.1	3.0	3.0	3.5	3.0	3.5	0.3	0.8	0.9	1.6
Intermediate production and transport workers	2.7	3.3	3.3	3.7	3.2	4.4	0.8	0.8	1.1	1.7
Elementary clerical, sales and service workers	3.9	2.7	3.2	2.8	3.4	2.1	0.2	0.3	0.6	1.0
Labourers and related workers	3.0	3.1	3.0	3.4	3.0	4.1	0.5	0.6	1.4	1.6
<i>All occupations</i>	3.0	3.4	3.4	3.8	3.4	4.0	0.4	1.1	0.8	1.7
PRIVATE AND PUBLIC										
Managers and administrators	3.2	3.6	3.3	4.0	2.9	3.8	0.9	1.2	0.8	0.8
Professionals	3.0	3.8	3.9	4.3	3.5	4.2	0.8	1.4	0.8	1.2
Associate professionals	2.9	3.6	3.1	3.6	3.2	3.3	0.5	1.0	0.7	1.0
Tradepersons and related workers	2.8	3.4	3.3	3.4	3.2	3.7	0.5	1.5	0.7	0.9
Advanced clerical and service workers	2.6	3.2	2.5	3.5	2.4	3.3	0.4	1.1	1.0	0.8
Intermediate clerical, sales and service workers	2.9	3.1	3.1	3.1	3.1	3.6	0.6	1.2	0.9	0.9
Intermediate production and transport workers	2.5	3.2	3.0	3.4	3.0	3.2	0.4	1.2	1.0	0.5
Elementary clerical, sales and service workers	2.6	3.2	2.6	3.3	2.5	3.5	0.7	1.1	0.9	0.8
Labourers and related workers	2.5	3.1	3.1	3.3	3.2	3.3	0.4	1.2	1.0	0.6
<b>All occupations</b>	<b>2.9</b>	<b>3.4</b>	<b>3.3</b>	<b>3.7</b>	<b>3.1</b>	<b>3.6</b>	<b>0.6</b>	<b>1.3</b>	<b>0.8</b>	<b>0.9</b>

## ORDINARY TIME HOURLY RATES OF PAY EXCLUDING BONUSES

<i>Period</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Northern Territory</i>	<i>Australian Capital Territory</i>	<i>Australia</i>
INDEX NUMBERS (a)									
<b>1998-99</b>	104.7	104.1	104.2	104.1	104.4	103.5	104.3	103.6	<b>104.4</b>
<b>1999-2000</b>	107.9	107.1	107.3	107.1	107.2	106.2	106.9	106.3	<b>107.4</b>
<b>2000-01</b>	111.9	110.8	110.7	110.6	111.1	109.2	109.9	110.1	<b>111.1</b>
<b>2001-02</b>	115.6	114.6	114.3	114.2	114.6	112.6	113.4	113.6	<b>114.8</b>
<b>2000</b>									
March	108.1	107.5	107.7	107.5	107.6	106.5	107.2	106.6	<b>107.7</b>
June	109.0	108.2	108.1	108.2	108.1	106.9	107.6	107.1	<b>108.4</b>
September	110.6	109.4	109.1	109.2	109.5	108.1	108.7	108.9	<b>109.7</b>
December	111.3	110.3	110.4	110.2	110.2	108.9	110.0	109.8	<b>110.6</b>
<b>2001</b>									
March	112.5	111.2	111.3	111.2	111.9	109.5	110.4	110.6	<b>111.7</b>
June	113.1	112.1	112.0	111.7	112.7	110.3	110.6	111.0	<b>112.4</b>
September	114.5	113.5	113.2	112.7	113.4	111.5	111.7	112.7	<b>113.7</b>
December	115.1	114.2	114.0	114.0	114.1	112.1	113.4	113.3	<b>114.4</b>
<b>2002</b>									
March	116.1	114.9	114.7	114.9	115.1	113.1	114.0	113.9	<b>115.2</b>
June	116.6	115.9	115.4	115.3	115.9	113.6	114.3	114.4	<b>115.9</b>
September	118.1	117.5	116.4	117.0	117.7	114.9	115.7	116.0	<b>117.4</b>
December	118.9	118.4	117.5	118.5	118.4	116.1	116.2	117.0	<b>118.3</b>
<b>2003</b>									
March	120.5	119.1	118.5	119.2	119.3	116.5	117.6	118.1	<b>119.4</b>
CHANGE FROM PREVIOUS FINANCIAL YEAR (%)									
<b>1999-2000</b>	3.1	2.9	3.0	2.9	2.7	2.6	2.5	2.6	<b>2.9</b>
<b>2000-01</b>	3.7	3.5	3.2	3.3	3.6	2.8	2.8	3.6	<b>3.4</b>
<b>2001-02</b>	3.3	3.4	3.3	3.3	3.2	3.1	3.2	3.2	<b>3.3</b>
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)									
<b>2001</b>									
March	4.1	3.4	3.3	3.4	4.0	2.8	3.0	3.8	<b>3.7</b>
June	3.8	3.6	3.6	3.2	4.3	3.2	2.8	3.6	<b>3.7</b>
September	3.5	3.7	3.8	3.2	3.6	3.1	2.8	3.5	<b>3.6</b>
December	3.4	3.5	3.3	3.4	3.5	2.9	3.1	3.2	<b>3.4</b>
<b>2002</b>									
March	3.2	3.3	3.1	3.3	2.9	3.3	3.3	3.0	<b>3.1</b>
June	3.1	3.4	3.0	3.2	2.8	3.0	3.3	3.1	<b>3.1</b>
September	3.1	3.5	2.8	3.8	3.8	3.0	3.6	2.9	<b>3.3</b>
December	3.3	3.7	3.1	3.9	3.8	3.6	2.5	3.3	<b>3.4</b>
<b>2003</b>									
March	3.8	3.7	3.3	3.7	3.6	3.0	3.2	3.7	<b>3.6</b>
CHANGE FROM PREVIOUS QUARTER (%)									
<b>2001</b>									
March	1.1	0.8	0.8	0.9	1.5	0.6	0.4	0.7	<b>1.0</b>
June	0.5	0.8	0.6	0.4	0.7	0.7	0.2	0.4	<b>0.6</b>
September	1.2	1.2	1.1	0.9	0.6	1.1	1.0	1.5	<b>1.2</b>
December	0.5	0.6	0.7	1.2	0.6	0.5	1.5	0.5	<b>0.6</b>
<b>2002</b>									
March	0.9	0.6	0.6	0.8	0.9	0.9	0.5	0.5	<b>0.7</b>
June	0.4	0.9	0.6	0.3	0.7	0.4	0.3	0.4	<b>0.6</b>
September	1.3	1.4	0.9	1.5	1.6	1.1	1.2	1.4	<b>1.3</b>
December	0.7	0.8	0.9	1.3	0.6	1.0	0.4	0.9	<b>0.8</b>
<b>2003</b>									
March	1.3	0.6	0.9	0.6	0.8	0.3	1.2	0.9	<b>0.9</b>

(a) Reference base of each index: September quarter 1997=100.0.

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ORDINARY TIME HOURLY RATES OF PAY EXCLUDING BONUSES,  
Sector by Industry—Index numbers(a)

Industry	FINANCIAL YEAR				QUARTER				
	1998-99	1999-2000	2000-01	2001-02	Mar Qtr 2002	Jun Qtr 2002	Sep Qtr 2002	Dec Qtr 2002	Mar Qtr 2003
	PRIVATE								
Mining	103.7	106.4	109.7	113.3	114.1	114.7	116.4	117.4	117.9
Manufacturing	104.9	107.9	111.7	115.4	115.7	116.6	118.2	119.4	120.2
Electricity, gas and water supply	104.7	108.2	111.4	116.5	116.7	118.0	119.9	120.7	121.0
Construction	104.8	107.9	112.6	116.5	117.1	117.5	119.4	119.9	121.3
Wholesale trade	103.5	106.2	110.0	113.1	113.2	114.1	116.0	116.7	117.3
Retail trade	103.3	105.8	108.5	111.3	111.7	112.2	113.7	114.5	115.2
Accommodation, cafes and restaurants	103.4	105.8	109.2	112.3	112.7	113.1	114.8	116.1	116.9
Transport and storage	103.8	106.4	109.3	112.0	112.4	112.8	113.7	115.1	116.2
Communication services	103.0	107.3	111.3	116.2	116.3	116.5	118.6	118.8	119.4
Finance and insurance	105.0	108.6	112.5	117.0	117.6	118.5	119.3	120.9	121.5
Property and business services	104.4	108.5	113.2	117.2	117.5	118.2	120.2	120.8	121.3
Education	103.8	107.2	111.2	115.1	115.3	116.4	118.0	118.4	120.7
Health and community services	104.2	106.5	109.4	113.4	113.9	114.4	115.7	116.6	117.4
Cultural and recreational services	103.2	105.2	108.8	112.4	113.0	113.6	115.2	116.3	117.6
Personal and other services	102.7	105.5	108.6	112.9	113.2	114.1	115.2	115.9	116.6
<i>All industries</i>	<i>104.2</i>	<i>107.2</i>	<i>110.9</i>	<i>114.5</i>	<i>114.9</i>	<i>115.6</i>	<i>117.2</i>	<i>118.1</i>	<i>118.9</i>
PUBLIC									
Government administration and defence	104.7	107.7	111.1	114.8	115.4	115.6	116.7	118.1	119.6
Education	105.3	108.1	112.0	116.6	116.6	118.1	120.2	121.0	122.8
Health and community services	106.4	109.6	113.0	116.5	117.4	117.8	118.4	119.0	122.7
Cultural and recreational services	105.1	107.3	110.3	113.2	113.7	113.9	115.6	116.5	117.8
Personal and other services	105.5	109.6	113.2	116.8	118.2	118.3	119.7	120.2	122.7
<i>All industries(b)</i>	<i>105.0</i>	<i>108.2</i>	<i>111.9</i>	<i>115.7</i>	<i>116.4</i>	<i>116.9</i>	<i>118.2</i>	<i>119.1</i>	<i>121.1</i>
PRIVATE AND PUBLIC									
Mining	103.7	106.5	109.7	113.4	114.1	114.8	116.5	117.4	117.9
Manufacturing	104.9	107.9	111.7	115.4	115.7	116.6	118.2	119.4	120.1
Electricity, gas and water supply	104.7	108.8	113.0	117.8	118.7	119.2	121.0	122.3	123.4
Construction	104.9	108.1	112.7	116.5	117.0	117.4	119.0	119.7	121.3
Wholesale trade	103.5	106.2	110.0	113.1	113.2	114.1	116.0	116.7	117.3
Retail trade	103.3	105.8	108.5	111.3	111.7	112.2	113.7	114.5	115.2
Accommodation, cafes and restaurants	103.4	105.8	109.1	112.3	112.7	113.1	114.8	116.1	116.8
Transport and storage	103.8	106.3	109.6	112.6	112.9	113.5	114.5	115.8	117.1
Communication services	102.9	106.9	110.5	114.5	115.7	115.7	116.4	117.0	117.5
Finance and insurance	105.0	108.5	112.4	116.8	117.4	118.2	119.0	120.7	121.3
Property and business services	104.5	108.5	113.2	117.2	117.5	118.2	120.2	120.7	121.3
Government administration and defence	104.7	107.7	111.1	114.8	115.4	115.6	116.7	118.1	119.6
Education	104.9	107.8	111.8	116.1	116.2	117.5	119.5	120.2	122.1
Health and community services	105.1	107.9	111.0	114.8	115.4	115.9	116.9	117.6	119.8
Cultural and recreational services	103.8	105.9	109.3	112.7	113.2	113.7	115.3	116.4	117.7
Personal and other services	104.0	107.3	110.7	114.6	115.4	115.9	117.2	117.8	119.4
<b>All industries</b>	<b>104.4</b>	<b>107.4</b>	<b>111.1</b>	<b>114.8</b>	<b>115.2</b>	<b>115.9</b>	<b>117.4</b>	<b>118.3</b>	<b>119.4</b>

(a) Reference base of each index: September quarter 1997=100.0.

(b) Includes those industries not separately listed.

ORDINARY TIME HOURLY RATES OF PAY EXCLUDING BONUSES,  
Sector by Industry—Percentage changes

Industry	FROM PREVIOUS FINANCIAL YEAR			FROM CORRESPONDING QUARTER OF PREVIOUS YEAR			FROM PREVIOUS QUARTER			
	1999-2000	2000-01	2001-02	Mar Qtr 2001	Mar Qtr 2002	Mar Qtr 2003	Jun Qtr 2002	Sep Qtr 2002	Dec Qtr 2002	Mar Qtr 2003
PRIVATE										
Mining	2.6	3.1	3.3	3.4	3.5	3.3	0.5	1.5	0.9	0.4
Manufacturing	2.9	3.5	3.3	3.9	2.9	3.9	0.8	1.4	1.0	0.7
Electricity, gas and water supply	3.3	3.0	4.6	2.9	4.4	3.7	1.1	1.6	0.7	0.2
Construction	3.0	4.4	3.5	4.1	3.6	3.6	0.3	1.6	0.4	1.2
Wholesale trade	2.6	3.6	2.8	3.5	2.6	3.6	0.8	1.7	0.6	0.5
Retail trade	2.4	2.6	2.6	2.5	2.6	3.1	0.4	1.3	0.7	0.6
Accommodation, cafes and restaurants	2.3	3.2	2.8	3.3	2.9	3.7	0.4	1.5	1.1	0.7
Transport and storage	2.5	2.7	2.5	2.9	2.5	3.4	0.4	0.8	1.2	1.0
Communication services	4.2	3.7	4.4	3.8	3.9	2.7	0.2	1.8	0.2	0.5
Finance and insurance	3.4	3.6	4.0	3.9	4.0	3.3	0.8	0.7	1.3	0.5
Property and business services	3.9	4.3	3.5	4.7	3.2	3.2	0.6	1.7	0.5	0.4
Education	3.3	3.7	3.5	3.7	3.3	4.7	1.0	1.4	0.3	1.9
Health and community services	2.2	2.7	3.7	2.7	3.9	3.1	0.4	1.1	0.8	0.7
Cultural and recreational services	1.9	3.4	3.3	3.7	3.1	4.1	0.5	1.4	1.0	1.1
Personal and other services	2.7	2.9	4.0	3.4	3.7	3.0	0.8	1.0	0.6	0.6
<i>All industries</i>	2.9	3.5	3.2	3.6	3.1	3.5	0.6	1.4	0.8	0.7
PUBLIC										
Government administration and defence	2.9	3.2	3.3	3.4	3.3	3.6	0.2	1.0	1.2	1.3
Education	2.7	3.6	4.1	4.3	3.4	5.3	1.3	1.8	0.7	1.5
Health and community services	3.0	3.1	3.1	3.6	3.3	4.5	0.3	0.5	0.5	3.1
Cultural and recreational services	2.1	2.8	2.6	3.0	2.8	3.6	0.2	1.5	0.8	1.1
Personal and other services	3.9	3.3	3.2	3.0	4.0	3.8	0.1	1.2	0.4	2.1
<i>All industries(a)</i>	3.0	3.4	3.4	3.8	3.4	4.0	0.4	1.1	0.8	1.7
PRIVATE AND PUBLIC										
Mining	2.7	3.0	3.4	3.3	3.5	3.3	0.6	1.5	0.8	0.4
Manufacturing	2.9	3.5	3.3	3.9	2.9	3.8	0.8	1.4	1.0	0.6
Electricity, gas and water supply	3.9	3.9	4.2	3.7	4.5	4.0	0.4	1.5	1.1	0.9
Construction	3.1	4.3	3.4	4.1	3.4	3.7	0.3	1.4	0.6	1.3
Wholesale trade	2.6	3.6	2.8	3.5	2.6	3.6	0.8	1.7	0.6	0.5
Retail trade	2.4	2.6	2.6	2.5	2.6	3.1	0.4	1.3	0.7	0.6
Accommodation, cafes and restaurants	2.3	3.1	2.9	3.1	3.0	3.6	0.4	1.5	1.1	0.6
Transport and storage	2.4	3.1	2.7	3.4	2.5	3.7	0.5	0.9	1.1	1.1
Communication services	3.9	3.4	3.6	3.8	3.3	1.6	0.0	0.6	0.5	0.4
Finance and insurance	3.3	3.6	3.9	3.7	4.0	3.3	0.7	0.7	1.4	0.5
Property and business services	3.8	4.3	3.5	4.8	3.2	3.2	0.6	1.7	0.4	0.5
Government administration and defence	2.9	3.2	3.3	3.4	3.3	3.6	0.2	1.0	1.2	1.3
Education	2.8	3.7	3.8	4.2	3.4	5.1	1.1	1.7	0.6	1.6
Health and community services	2.7	2.9	3.4	3.1	3.6	3.8	0.4	0.9	0.6	1.9
Cultural and recreational services	2.0	3.2	3.1	3.5	3.0	4.0	0.4	1.4	1.0	1.1
Personal and other services	3.2	3.2	3.5	3.2	3.8	3.5	0.4	1.1	0.5	1.4
<b>All industries</b>	<b>2.9</b>	<b>3.4</b>	<b>3.3</b>	<b>3.7</b>	<b>3.1</b>	<b>3.6</b>	<b>0.6</b>	<b>1.3</b>	<b>0.8</b>	<b>0.9</b>

(a) Includes those industries not separately listed.

Period	ORDINARY TIME HOURLY RATES			TOTAL HOURLY RATES		
	Private	Public	Private and public	Private	Public	Private and public
INDEX NUMBERS (a)						
<b>1998-99</b>	104.2	105.0	104.4	104.2	105.1	104.4
<b>1999-2000</b>	107.3	108.4	107.6	107.3	108.4	107.5
<b>2000-01</b>	111.1	112.1	111.4	111.1	112.1	111.3
<b>2001-02</b>	114.5	116.0	114.9	114.5	116.0	114.8
<b>2000</b>						
March	107.6	108.7	107.9	107.6	108.7	107.9
June	108.3	109.3	108.6	108.3	109.3	108.5
September	109.8	110.5	110.0	109.8	110.5	109.9
December	110.7	111.4	110.9	110.7	111.4	110.8
<b>2001</b>						
March	111.6	112.8	111.9	111.5	112.8	111.9
June	112.3	113.5	112.6	112.2	113.5	112.5
September	113.5	114.7	113.8	113.4	114.7	113.7
December	114.2	115.4	114.5	114.2	115.4	114.4
<b>2002</b>						
March	114.8	116.6	115.2	114.8	116.6	115.2
June	115.5	117.2	115.9	115.5	117.2	115.9
September	117.0	118.5	117.3	117.0	118.5	117.3
December	118.1	119.3	118.4	118.1	119.3	118.4
<b>2003</b>						
March	118.9	121.4	119.5	118.9	121.4	119.5
CHANGE FROM PREVIOUS FINANCIAL YEAR (%)						
<b>1999-2000</b>	3.0	3.2	3.1	3.0	3.1	3.0
<b>2000-01</b>	3.5	3.4	3.5	3.5	3.4	3.5
<b>2001-02</b>	3.1	3.5	3.1	3.1	3.5	3.1
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)						
<b>2001</b>						
March	3.7	3.8	3.7	3.6	3.8	3.7
June	3.7	3.8	3.7	3.6	3.8	3.7
September	3.4	3.8	3.5	3.3	3.8	3.5
December	3.2	3.6	3.2	3.2	3.6	3.2
<b>2002</b>						
March	2.9	3.4	2.9	3.0	3.4	2.9
June	2.8	3.3	2.9	2.9	3.3	3.0
September	3.1	3.3	3.1	3.2	3.3	3.2
December	3.4	3.4	3.4	3.4	3.4	3.5
<b>2003</b>						
March	3.6	4.1	3.7	3.6	4.1	3.7
CHANGE FROM PREVIOUS QUARTER (%)						
<b>2001</b>						
March	0.8	1.3	0.9	0.7	1.3	1.0
June	0.6	0.6	0.6	0.6	0.6	0.5
September	1.1	1.1	1.1	1.1	1.1	1.1
December	0.6	0.6	0.6	0.7	0.6	0.6
<b>2002</b>						
March	0.5	1.0	0.6	0.5	1.0	0.7
June	0.6	0.5	0.6	0.6	0.5	0.6
September	1.3	1.1	1.2	1.3	1.1	1.2
December	0.9	0.7	0.9	0.9	0.7	0.9
<b>2003</b>						
March	0.7	1.8	0.9	0.7	1.8	0.9

(a) Reference base of each index: September quarter 1997 = 100.0.

## EXPLANATORY NOTES

### INTRODUCTION

**1** This publication contains indexes measuring quarterly changes in wage and salary costs for employee jobs. These indexes were compiled for the first time for the December quarter 1997 (with a reference base of September quarter 1997 = 100.0).

**2** The methodology used to construct the component indexes of the Wage Cost Index (WCI) is similar to that used for other price indexes such as the Consumer Price Index. In the WCI, index numbers are compiled from hourly wage and salary rates of pay for a representative sample of employee jobs within a sample of employing organisations. Individual indexes are compiled for various combinations of state/territory, sector (private/public), broad industry group and broad occupation group. For more detailed information on the methodology used in the construction of the WCI, refer to *Information Paper: Wage Cost Index, Australia, 2000* (cat. no. 6346.0).

### PUBLISHED INDEXES

**3** There are four sets of quarterly base-period weighted indexes in this publication, which together comprise the WCI:

- ordinary time hourly rates of pay—excluding bonuses
- ordinary time hourly rates of pay—including bonuses
- total hourly rates of pay—excluding bonuses
- total hourly rates of pay—including bonuses.

### DESIGN OF THE INDEXES

#### *Broad description*

**4** The WCI is a price index which measures changes over time in wage and salary costs for employee jobs, unaffected by changes in the quality or quantity of work performed. Changes in wages and salaries resulting from changes in the composition of the labour market are excluded from the WCI movements. This is achieved by combining average *price* movements for each segment of the labour market (defined by state/territory, sector, industry and occupation) using *expenditure weights* that remain constant between successive *weighting base* periods.

**5** Every effort is made to price jobs in the sample to constant quality. Price determining characteristics of the jobs are detailed in fixed pricing specifications, and any changes in wage and salary payments due to changes in the pricing specifications are removed from index movements. The following are examples of changes in price determining characteristics which are not reflected in index movements:

- changes in the nature of work performed (e.g. different tasks or responsibilities)
- changes in the quantity of work performed (e.g. the number of hours worked)
- changes in the characteristics of the job occupant (e.g. age, apprenticeship year, successful completion of training or a qualification, grade or level, experience, length of service, fitness, etc.)
- changes in location where the work is performed.

**6** Identifying and measuring quality changes for jobs can be difficult. However, in the WCI, a range of procedures has been developed to achieve this, and to ensure that only pure price changes are reflected in the indexes.

**7** The *ordinary time* indexes that *exclude* bonuses measure quarterly changes in ordinary time hourly wage and salary rates. Changes in rates of pay reflected in these indexes (i.e. pure price changes) arise from a range of sources including award variations, enterprise and workplace agreements, centralised wage fixation, individual contracts and informal arrangements.



## EXPLANATORY NOTES *continued*

### *Broad description continued*

**8** These indexes are not affected by changes in penalty payments (which fluctuate depending on the number of hours paid at penalty rates), changes in allowances (which fluctuate according to how much work is performed under special work conditions e.g. height, dirt, heat allowances) or changes in bonus payments (which may, or may not, relate to an individual's work performance). Specifically, the following costs are excluded when computing ordinary time hourly wage and salary rates:

- penalty payments for overtime, shifts, weekends and public holidays
- ordinary time and overtime allowances
- bonus payments.

**9** The effect of rolling ordinary time penalty payments and allowances into ordinary time hourly rates is excluded from these indexes. However, when overtime penalty payments are rolled into ordinary time hourly rates, the ordinary time indexes will increase accordingly.

**10** The *total hourly* indexes that *exclude* bonuses are based on a weighted combination of ordinary time hourly rates (described in paragraphs 7, 8 and 9) and overtime hourly rates. The total hourly rates reflect changes in ordinary time hourly rates as well as changes in overtime hourly rates. The effect of changes in the amount of overtime paid at each overtime rate is not shown in these indexes except when overtime penalty payments are rolled into ordinary time hourly rates. When this occurs, the increase in the ordinary time hourly rate will tend to be offset by the elimination of the higher overtime hourly rate, leaving the total hourly indexes largely unchanged.

**11** Only those indexes that *exclude* bonuses are pure price indexes. This is because bonus payments tend to reflect changes in the quality of work performed.

### SCOPE AND COVERAGE

**12** The target population of employers for the WCI is all employing organisations in Australia (private and public sectors) except:

- enterprises primarily engaged in agriculture, forestry or fishing
- private households employing staff
- foreign embassies, consulates, etc.

**13** All *employee* jobs in the target population of employers are in scope of the WCI, except the following:

- Australian permanent defence force jobs
- 'non-maintainable' jobs (i.e. jobs that are expected to be occupied for less than six months of a year)
- jobs for which wages and salaries are not determined by the Australian labour market (e.g. working proprietors of small incorporated enterprises, most employees of Community Development Employment Programs, jobs where the remuneration is set in a foreign country).

**14** As such, full-time, part-time, permanent, casual, managerial and non-managerial jobs are in scope of the WCI. Costs incurred by employers for work undertaken by self-employed persons such as consultants and subcontractors are out-of-scope of the WCI, as they do not relate to employee jobs.

## EXPLANATORY NOTES *continued*

### DATA COLLECTION

**15** Information for the WCI is collected each quarter by mail questionnaires from a sample survey of approximately 4,800 private and public sector employers selected from the ABS Business Register. In the first quarter they participate in the survey, each employer selects a sample of jobs from their workplace(s) using sampling instructions provided by the ABS, and provides information for these jobs, including detailed pricing specifications. In subsequent quarters they are asked to provide details of payments made to the current occupants of these same jobs. It is essential that the same *jobs* are priced in successive quarters, whether the individual job occupants are the same or not. Approximately 20,000 matched jobs are priced each quarter from the selected employers.

**16** The sampling method retains the highest possible common sample of employers over time, and retains the same sampled jobs within those employers where possible. However, it is also necessary to ensure the WCI continues to be relevant and representative over time. For these reasons, the employer sample is refreshed annually (for the September quarter) in a way that ensures a high proportion of common selections while allowing new employers to be represented in the sample. Refreshing the sample also allows the ABS to control the length of time that small businesses in particular are included in the survey. The sample refresh coincides with updating of expenditure weights (see paragraph 18).

**17** Between each annual refresh of the employer sample, a small number of employee jobs will be lost from the survey sample because of the closure of some businesses. In addition, some jobs in continuing businesses will be replaced in the sample because of restructuring and other job changes.

### WEIGHTING

**18** In the WCI, as with other price indexes, expenditure weights are used to combine elementary aggregate indexes into publication indexes. These weights are derived from independent estimates of total weekly wages and salaries for elementary aggregates. The independent estimates are sourced from the quarterly Survey of Employment and Earnings (SEE), the biennial Employee Earnings and Hours (EEH) survey and the five-yearly Census of Population and Housing. The weights are updated for the September quarter each year to take account of changing wage and salary expenditure patterns among the elementary aggregates. The first percentage changes that can be calculated using the updated weights will occur in respect of the December quarter each year. Updated expenditure weights reflect changes in the distribution of the number of employee jobs among occupations, industries, states/territories and sectors, as well as changes in wage rate relativities. Appendix 1 shows the distribution of employers' expenditure on wages and salaries, for the September quarter 2002.

**19** To facilitate comparison of index numbers over time, the published indexes will not be re-referenced (i.e. reset) to 100.0 each time this re-weighting occurs. This will provide a continuous series from the original reference base of September quarter 1997 = 100.0, while incorporating the updated expenditure weights.

### PERCENTAGE CHANGE AND ROUNDING

**20** The published index numbers have been rounded to one decimal place, and the percentage changes (also rounded to one decimal place) are calculated from the rounded index numbers. In some cases, this can result in the percentage change for the total level of a group of indexes being outside the range of the percentage changes for the component level indexes.

## EXPLANATORY NOTES *continued*

### INTERPRETATION OF INDEX NUMBERS

**21** Index numbers in this publication measure changes in hourly rates of pay between the reference base period (September quarter 1997 = 100.0) and a later period. Index number levels cannot be compared across states/territories as they do not provide comparative information on levels of hourly rates of pay. Similarly, index number levels cannot be compared across sectors, industries, or occupations. The usefulness of index numbers stems from the fact that index numbers for any two periods can be used to directly calculate the change or movement in hourly rates of pay between the two periods. These *movements* can be compared across states/territories, sectors, industries, or occupations.

### INDEX MOVEMENTS

**22** Index numbers in this publication are constructed on a quarterly basis with a reference base of September quarter 1997 = 100.0. Movements in indexes from one period to another can be expressed either as changes in *index points* or as percentage changes. In this publication, percentage changes are calculated to illustrate three different kinds of movements in indexes:

- movements between consecutive quarters
- movements between corresponding quarters of consecutive years
- movements between consecutive financial years.

**23** The following example illustrates the method of calculating changes in index points and percentage changes between any two periods:

	Index numbers (See table 1)
March quarter 2003	119.4
<i>less</i> December quarter 2002	118.3
Change in index points	1.1
Percentage change =	$\frac{1.1}{118.3} \times 100 = 0.9\%$

### FINANCIAL YEAR INDEXES

**24** Index numbers for financial years are calculated as simple (arithmetic) averages of the four quarterly index numbers for the financial year. As the Wage Cost Index was first published with a reference base of September quarter 1997 = 100.0, the first financial year index number that can be calculated is for 1997–98. Consequently, the first percentage change between financial years that can be calculated is between 1997–98 and 1998–99. The following example illustrates the method of calculating the most recent financial year index numbers:

Total hourly rates of pay excluding bonuses, Australia

	Index numbers (See table 1)
September quarter 2001	113.6
<i>plus</i> December quarter 2001	114.4
<i>plus</i> March quarter 2002	115.2
<i>plus</i> June quarter 2002	115.9
Financial year 2001–02 =	$\frac{459.1}{4} = 114.8$

**25** Percentage changes between any two financial year index numbers can be calculated using the method outlined in paragraph 23 above.

### REVISIONS TO INDEXES

**26** Index numbers will be released as final figures at the time they are first published. Revisions will only occur in exceptional circumstances.

## EXPLANATORY NOTES *continued*

### RELIABILITY OF THE INDEXES

**27** Since the index numbers are based on information relating to a sample of employee jobs, they are subject to *sampling error*. That is, they may differ from figures that would have resulted had all the in-scope employee jobs in the labour market been included in the collection. Estimates of the magnitude of the sampling error of the index numbers will not be available until the WCI has been operating for a sufficient number of quarters to enable meaningful estimates to be calculated.

**28** Inaccuracies in the data may also occur because of imperfections in reporting by respondents or in processing by the ABS. This kind of inaccuracy is referred to as *non-sampling error*. Every effort has been made to minimise non-sampling error, for example:

- by careful design and testing of questionnaires and processing systems
- by providing instructions to employers on how to select a sample of employee jobs
- by detailed checking of completed survey forms
- by instituting a range of procedures for ensuring that jobs are priced to constant quality.

### RELATED PUBLICATIONS

**29** Users may also wish to refer to the following publications which are available on request:

*Information Paper: Wage Cost Index, Australia, 2000*, cat. no. 6346.0

*Average Weekly Earnings, Australia*, cat. no. 6302.0

*Consumer Price Index, Australia*, cat. no. 6401.0

*Producer Price Indexes, Australia*, cat. no. 6427.0

*International Trade Price Indexes, Australia*, cat. no. 6457.0

**30** Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily *Release Advice* on the web site which details products to be released in the week ahead.

### ABS DATA AVAILABLE ON REQUEST

**31** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to Tim Landrigan on Perth (08) 9360 5151 or the National Information Service on 1300 135 070.

# APPENDIX 1 DISTRIBUTION OF EXPENDITURE ON WAGES

SEPTEMBER QUARTER 2002

## **A1** DISTRIBUTION OF EMPLOYERS' TOTAL EXPENDITURE ON WAGES AND SALARIES (a)

	<i>Private</i>	<i>Public</i>	<i>Private and public</i>
	%	%	%
<b>Sector by State/Territory</b>			
New South Wales	36.8	33.0	35.9
Victoria	26.5	21.0	25.2
Queensland	16.2	19.9	17.1
South Australia	6.6	7.2	6.8
Western Australia	9.9	8.5	9.6
Tasmania	1.6	2.2	1.7
Northern Territory	0.9	2.1	1.2
Australian Capital Territory	1.4	6.0	2.5
<b>Australia</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Sector by broad occupation group(b)</b>			
Managers and administrators	12.5	10.9	12.1
Professionals	20.1	41.1	25.2
Associate professionals	12.2	15.0	12.9
Tradespersons and related workers	13.5	6.1	11.7
Advanced clerical and service workers	3.7	2.2	3.3
Intermediate clerical, sales and service workers	14.7	14.5	14.6
Intermediate production and transport workers	10.1	3.3	8.4
Elementary clerical, sales and service workers	6.5	4.0	5.9
Labourers and related workers	6.7	2.9	5.8
<b>All occupations</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Components may not sum to 100.0 due to rounding.

(b) Classified according to the *Australian Standard Classification of Occupations (ASCO), Second Edition* (cat. no. 1220.0).

# APPENDIX 1 DISTRIBUTION OF EXPENDITURE ON WAGES *continued*

SEPTEMBER QUARTER 2002  
*continued*

## **A1** DISTRIBUTION OF EMPLOYERS' TOTAL EXPENDITURE ON WAGES AND SALARIES (a) *continued*

	<i>Private</i>	<i>Public</i>	<i>Private and public</i>
	%	%	%
<b>Sector by broad industry group(b)</b>			
Mining	3.1	(c)	2.4
Manufacturing	20.9	(c)	15.9
Electricity, gas and water supply	1.0	(c)	1.4
Construction	6.1	(c)	5.1
Wholesale trade	8.2	(c)	6.2
Retail trade	11.6	(c)	8.9
Accommodation, cafes and restaurants	4.0	(c)	3.1
Transport and storage	5.5	(c)	5.1
Communication services	1.6	(c)	2.5
Finance and insurance	8.2	(c)	6.5
Property and business services	14.8	(c)	12.2
Government administration and defence	. .	26.8	6.6
Education	3.7	24.3	8.8
Health and community services	7.1	18.8	9.9
Cultural and recreational services	2.0	2.4	2.2
Personal and other services	2.1	6.7	3.2
<b>All industries</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

. . not applicable

(a) Components may not sum to 100.0 due to rounding.

(b) Classified according to *Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993* (cat. no. 1292.0).

(c) For the public sector, these industries are combined and included in the 'All industries' total.

## APPENDIX 2 SEASONAL ADJUSTMENT

### INTRODUCTION

**1** The ABS released experimental seasonally adjusted estimates of the WCI in the April 2002 issue of *Australian Economic Indicators* (cat. no. 1350.0). The article concluded that the WCI does exhibit seasonality but the pattern is affected by some instability in the series. However, at that time the seasonal adjustment was based on a time series of only 17 quarters. As the time series available becomes longer, it should be easier to identify the underlying seasonal pattern. Despite the uncertainties associated with the seasonally adjusted estimates at this time, the ABS will be updating the seasonal adjustment each quarter and will release the experimental seasonally adjusted estimates in this annex to the WCI publication.

### TIME SERIES DECOMPOSITION

**2** Three distinctly different notional influences underlie any observation in a time series such as the WCI:

- Trend movements—measures of the underlying behaviour of the series
- Seasonal influences—systematic calendar related effects, such as pay reviews occurring at the end of the financial or calendar year
- Residual irregulars—unpredictable short-term fluctuations in a series, not systematic or calendar related, involving one-off events such as delayed payments of safety net adjustments.

**3** To understand the underlying behaviour of the original series over time and to assist in decision making, the ABS estimates and publishes seasonally adjusted and trend series for a wide range of time series. When a series is seasonally adjusted, estimates of the seasonal influences (i.e. systematic calendar related effects) are removed from the original data. The WCI seasonally adjusted estimates thus reflect the interaction of the underlying trend and all the irregular effects.

**4** The ABS will not normally recommend a seasonally adjusted series for publication unless there are at least five, though preferably seven, years of quarterly data. This is the length of time required before the moving averages used in the seasonal adjustment process yield reliable results. Also, there must be significant peaks and/or troughs evident in the data on a regular basis for seasonality to exist. If the series is not stable the seasonal patterns are difficult to determine and in such cases the ABS may wait for more data or publish only a trend series. A trend series is one in which the irregular influences have been removed from the seasonally adjusted series; in other words, where both the systematic calendar related influences and the irregular influences have been removed from the original estimates.

### WCI SEASONALITY

**5** The most recent seasonal analysis of the WCI shows that evidence of seasonality exists. A slight peak exists in the first quarter, but not as significant as the peak in the third quarter. A definite trough exists in the second quarter, again suggesting seasonality exists. No obvious seasonality has been identified for the fourth quarter. Anecdotal and historical evidence from WCI data indicate increased activity regarding pay rises at the end of the financial year for employees on individual agreements and awards. With methods of setting pay in Australia estimated at 20.5 per cent for awards, 38.2 per cent for collective agreements and 41.3 per cent for individual agreements (Source: *Employee Earnings and Hours, May 2002* (cat. no. 6306.0)), the seasonal high in the third quarter is not surprising.

**6** When the WCI series is broken down to the sector level interesting differences occur. For the private sector, it is apparent that the second quarter is seasonally low and the third quarter is seasonally high. This pattern is consistent with the WCI at the total Australia level, but the size of the seasonal factors is larger for the private sector. While there is inconclusive evidence of seasonality in the first quarter, the fourth quarter indicates the possibility of a slight peak. Anecdotal and historical evidence from WCI data indicates that pay movements are mainly reported for employees on individual agreements and awards in the third quarter. This is consistent with data from

## APPENDIX 2 SEASONAL ADJUSTMENT *continued*

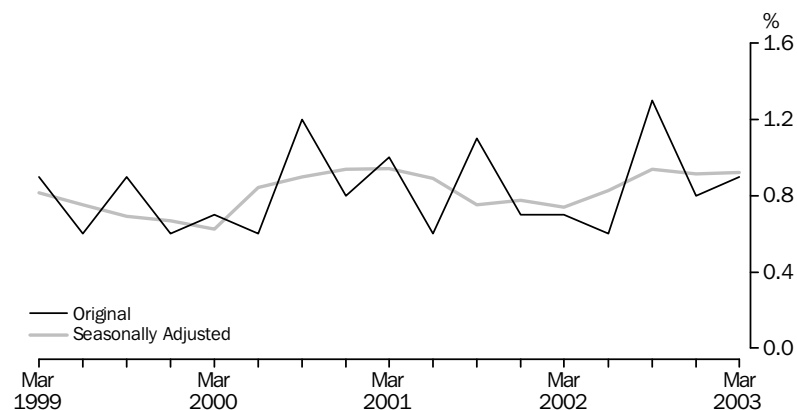
### WCI SEASONALITY *continued*

EEH, May 2002, which reports 50.4 per cent of employees on individual agreements and 24.6 per cent on awards in the private sector.

**7** The public sector exhibits a slightly different pattern of seasonality from the total Australia and private sector series. This may be due to the predominance of collective agreements as the pay setting mechanism in the public sector (89.8 per cent of employees (EEH, May 2002)). When looking at public sector data only, there is evidence of a higher seasonal pattern in the first quarter than in the third quarter and evidence of low seasonality in the second and fourth quarters. However, there is some instability evident in the public sector data which means the reliability of the estimated seasonal factors could be strengthened with a longer time series.

**8** The graph below compares the WCI, Australia, original and seasonally adjusted quarterly changes. The graph demonstrates how the peaks and troughs in the original data are smoothed by the seasonal adjustment process. The percentage movements in the original series are between 0.4 per cent and 1.3 per cent per quarter. The movements for the seasonally adjusted series are between 0.6 per cent and 0.9 per cent per quarter.

WCI QUARTERLY CHANGES, Original v Seasonally Adjusted



### REFERENCE BASE

**9** The reference base of an index series is most commonly a year but can also be a different length of time, ranging from two or three years down to a single quarter. It often coincides with the weighting base for the series, but this is not essential. The September quarter 1997 used as the base period for the original (i.e. non-seasonally adjusted) WCI series was chosen arbitrarily—it was the first quarter for which WCI data were available.

**10** Seasonal adjustment is a mathematical process that is principally designed to help analysts identify the underlying movements in the series involved. However, the relationship between the original and seasonally adjusted series is also useful in terms of indicating which quarters are 'seasonally high' and those which are 'seasonally low'. Therefore, it has been decided to show the seasonally adjusted series exactly as they have been derived from the original series and not to re-reference the seasonally adjusted data to 100.0 in September quarter 1997.

### SEASONAL ADJUSTMENT

**11** The WCI series uses a concurrent seasonal adjustment methodology to derive adjustment factors. This method uses the whole series available at each reference quarter to estimate seasonal factors. Concurrent adjustment can result in revisions each quarter to estimates for earlier periods, although the most significant change is likely to occur in the last quarter of the series previously published.



## APPENDIX 2 SEASONAL ADJUSTMENT *continued*

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### AVAILABILITY OF DATA

**12** Seasonally adjusted series are calculated for total Australia, private sector and public sector only. It is not possible at this stage to derive useful seasonally adjusted series for other index sets.

### CONCLUSION

**13** The ABS intends to publish the experimental seasonally adjusted WCI estimates each quarter. The estimates will be monitored with the aim of removing the 'experimental' status once the seasonal pattern can be reliably estimated.

## APPENDIX 2 SEASONAL ADJUSTMENT *continued*

EXPERIMENTAL ESTIMATES  
*continued*

### 1 TOTAL HOURLY RATES OF PAY EXCLUDING BONUSES, Seasonally adjusted

	<i>Private</i>	<i>Public</i>	<i>Private and public</i>
INDEX NUMBERS (a)			
<b>2000</b>			
March	107.5	108.3	107.7
June	108.3	109.3	108.6
September	109.4	110.2	109.6
December	110.4	111.3	110.6
<b>2001</b>			
March	111.4	112.3	111.6
June	112.3	113.5	112.6
September	113.2	114.4	113.5
December	114.1	115.3	114.4
<b>2002</b>			
March	114.9	116.1	115.2
June	115.8	117.1	116.2
September	117.0	118.1	117.2
December	118.0	119.3	118.3
<b>2003</b>			
March	118.9	120.9	119.4
CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR (%)			
<b>2001</b>			
March	3.6	3.7	3.6
June	3.7	3.8	3.7
September	3.5	3.8	3.6
December	3.4	3.6	3.4
<b>2002</b>			
March	3.1	3.4	3.2
June	3.1	3.2	3.2
September	3.4	3.2	3.3
December	3.4	3.5	3.4
<b>2003</b>			
March	3.5	4.1	3.6
CHANGE FROM PREVIOUS QUARTER (%)			
<b>2001</b>			
March	0.9	0.9	0.9
June	0.8	1.1	0.9
September	0.8	0.8	0.8
December	0.8	0.8	0.8
<b>2002</b>			
March	0.7	0.7	0.7
June	0.8	0.9	0.9
September	1.0	0.9	0.9
December	0.9	1.0	0.9
<b>2003</b>			
March	0.8	1.3	0.9

(a) Reference base of each index: September quarter 1997 (in non-seasonally adjusted terms) = 100.0. See paragraphs 9 and 10 of this Appendix.

## GLOSSARY

<b>Bonuses</b>	Payments made to a job occupant that are in addition to regular wages and salaries and which generally relate to the job occupant's, or the organisation's performance.
<b>Elementary aggregates</b>	The finest aggregations of jobs, in terms of state/territory, sector, industry group and occupation group, for which expenditure weights are available.
<b>Employee job</b>	A job for which the occupant receives remuneration in wages, salary, payment in kind, or piece rates.
<b>Employer</b>	Organisation with one or more employees.
<b>Expenditure weights</b>	A measure of the relative importance of each elementary aggregate, based on employers' total expenditure on wages and salaries. Expenditure weights are used to combine elementary aggregate indexes into broader level indexes.
<b>Index number</b>	Measures the ratio of hourly rates of pay between the reference base period and a later period. The index number for the base quarter = 100.0.
<b>Industry</b>	Classified according to the <i>Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993</i> (cat. no. 1292.0).
<b>Occupation</b>	Classified according to the <i>Australian Standard Classification of Occupations (ASCO), Second Edition</i> (cat. no. 1220.0).
<b>Ordinary time hourly rates of pay index</b>	Measures quarterly change in ordinary time hourly rates of pay (see Explanatory Notes paragraphs 7, 8 and 9).
<b>Ordinary time hours</b>	Award, standard or agreed hours of work paid for at the ordinary rate.
<b>Overtime hours</b>	The number of hours paid for in excess of ordinary time hours, based on the data for the first quarter a selected job is included in the survey.
<b>Reference base period</b>	The period for which an index series is given the value of 100.0.
<b>Sector</b>	Public sector comprises local government authorities and all government departments and agencies created by, or reporting to, the Commonwealth, or state/territory parliaments. The private sector comprises all organisations not classified as public sector.
<b>Total hourly rates of pay index</b>	Measures quarterly change in combined ordinary time and overtime hourly rates of pay (see Explanatory Notes paragraph 10).
<b>Weighting base</b>	The period to which the expenditure weights relate.

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- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

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