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# LABOUR

The principal subjects covered in this chapter are labour force, unemployment, wage rates, earnings, hours of work, labour costs, industrial disputes, trade unions and Commonwealth Government employment and training programs. Further detail on these subjects is contained in *Labour Statistics, Australia* (6101.0), *A Guide to Labour Statistics* (6102.0) and in other publications listed at the end of this chapter.

# The Labour Force

Fundamental to the measurement of employment and unemployment is the concept of the labour force. The labour force is defined broadly as those persons aged 15 and over who during a particular week are either employed or unemployed. The labour force represents the total official supply of labour available to the labour market during a given week.

This section presents some summary statistics on the civilian labour force drawn from the ABS monthly Labour Force Survey and associated supplementary surveys. Set out below is a range of characteristics such as whether persons are employed, unemployed or not in the labour force, together with demographic information (i.e. age, sex, marital status, birthplace, etc.). For a description of the Labour Force Survey and its relationship to the Population Census see Year Book No. 68. Further details concerning the scope, coverage and survey methods (as well as more detailed statistics) of the labour force and supplementary surveys can be found in the publications listed at the end of this chapter.

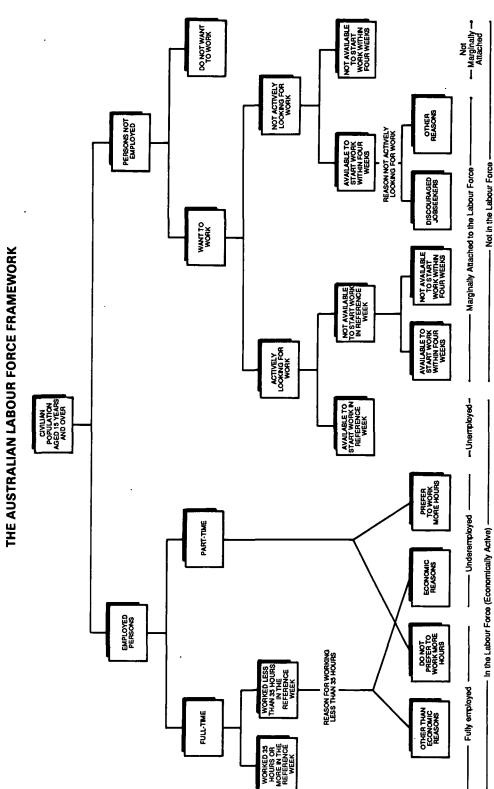
## Australian labour force framework

The need to reflect the dynamic structure and characteristics of the labour market and the changes required to respond to evolving socio-economic conditions and policy concerns have resulted in significant modifications to the original Labour Force Survey framework that was developed in the 1960s. An ever-increasing demand to obtain information concerning underemployment and information on persons wanting work but not defined as unemployed has led to improvements to the conceptual basis of the Australian labour force framework. The modified framework is set out schematically on the next page.

## Characteristics of the labour force

The size and composition of the labour force is not static over time. Growth of the labour force is due to an increase/decrease in labour force participation or in the population aged 15 and over. The table below sets out the growth of the labour force by source.

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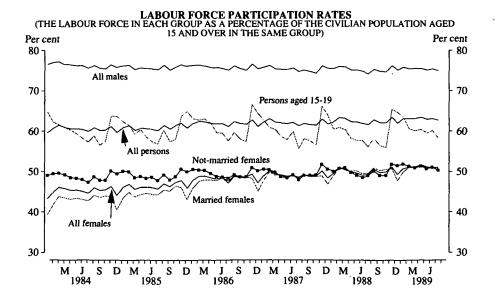


.

			(P	er cent)						
		Males		1	Females	-	Persons			
	Pa	Percentage points change due to			Percentage points change due to			Percentage points change due to		
Year ending August	Percentage change in labour force		Labour force partici- pation	Percentage change in labour force	Рори-	force partici-	Percentage change in labour force	Popu-	Labour force partici- pation	
1984	1.5	1.8	-0.4	2.9	1.6	1.4	2.1	1.7	0.3	
1985	1.4	1.9	-0.5	4.4	1.8	2.5	2.5	1.9	0.5	
1986	2.1	2.2	-0.1	6.3	2.1	4.2	3.7	2.2	1.5	
1987	1.6	2.1	-0.5	3.6	2.1	1.5	2.4	2.1	0.3	
1988	1.4	2.1	-0.7	4.4	2.1	2.3	2.6	2.1	0.5	
1989	3.1	2.1	0.9	5.0	2.0	2.8	3.9	2.0	1.8	

### LABOUR FORCE: SOURCES OF GROWTH (per cent)

One of the most important labour force measurements is the participation rate, which represents the proportion of the working age population who are in the labour force. Analysis of the participation rates provides the basis for monitoring changes in the size and composition of labour supply, particularly in terms of age, sex and marital status.



The following two tables provide more detailed information on the labour force status of persons. The first table presents the age and sex composition of the total labour force as at August 1989. The second table shows changes in labour force status over time.

		Nu	nber ('00	0)		Participation rate (per cent)					
		Females						Females			
Age group	Males	Married	Not married	Total	Persons	Males	Married	Not married	Total	Persons	
15-64	4,765.4	1,992.5	1,348.1	3,340.6	8,106.0	84.2	57.2	65.1	60.2	72.3	
15-19	426.9	13.8	379.3	393.2	820.0	59.6	56.6	57.1	57.1	58.4	
20-24	596.7	139.9	368.6	508.5	1,105.2	89.2	65.3	83.3	77.4	83.4	
25-34	1,309.5	608.5	287.9	896.4	2,205.8	94.4	60.2	78.1	65.0	79.9	
35-44	1,180.4	713.6	157.6	871.2	2,051.6	93.3	69.6	70.7	69.8	81.7	
45-54	793.5	397.9	107.7	505.6	1,299.1	88.7	58.5	62.6	59.3	74.4	
55-59	277.6	83.8	31.8	115.6	393.3	74.9	30.7	36.6	32.1	53.8	
6064	180.7	35.1	15.2	50.2	231.0	49.8	13.8	13.3	13.6	31.6	
65 and over	67.2	13.7	10.1	23.8	91.0	8.5	3.1	1.6	2.2	4.9	
Total	4,832.6	2,006.2	1,358.2	3,364.4	8,197.0	74.9	51.1	50.3	50.8	62.7	

## CIVILIAN LABOUR FORCE, BY AGE, AUGUST 1989

CIVILIAN POPULATION AGED 15 AND OVER: LABOUR FORCE STATUS

	-	Ū	nemployed				Civilian		
August	Employed	Looking for full-time work	Looking for part-time work	Total -'000—	Labour force	Not in the labour force	population aged 15 years and over	Unemploy- ment rate	Partici- pation rate er cent-
				MALE	ES				
1984	4,018.0	358.6	22.6	381.2	4,399.2	1,418.8	5,818.0	8.7	75.6
1985	4,111.1	325.4	23.7	349.1	4,460.2	1,469.5	5,929.8	7.8	75.2
1986	4,202.6	320.9	28.3	349.3	4,551.9	1,509.4	6,061.2	7.7	75.1
1987	4,277.1	317.2	29.8	347.1	4,624.2	1,565.4	6,189.6	7.5	74.7
1988	4,382.1	279.9	25.8	305.7	4,687.8	1,633.9	6,321.7	6.5	74.2
1989	4,571.9	230.7	30.0	260.7	4,832.6	1,619.7	6,452.3	5.4	74.9
				FEMAI	.ES				
1984	2,448.1	165.0	57.9	222.8	2,671.0	3,319.9	5,990.9	8.3	44.6
1985	2,564.5	162.7	60.9	223.6	2,788.1	3,313.6	6,101.6	8.0	45.7
1986	2,716.0	170.9	77.5	248.4	2,964.4	3,266.3	6,230.6	8.4	47.6
1987	2,815.2	177.8	77.1	255.0	3,070.2	3,291.4	6,361.6	8.3	48.3
1988	2,971.3	165.5	67.4	233.0	3,204.2	3,288.6	6,492.9	7.3	49.4
1989	3,155.7	139.4	69.3	208.7	3,364.4	3,258.7	6,623.1	6.2	50.8

The age at which a person leaves full-time education and the level of educational attainment reached can affect the labour force status of that person. The following two tables set out the differential effects of these characteristics.

		IVEZ .	1 1/0/						
	Leav	ers aged	15 to 19	Leave	rs aged 20	) to 24		Tota	l(b)
Labour force status	Males	Females	Persons	Males	Females	Persons	Males H	emales	Persons
			_		- '000	) —			
Labour force	111.6	97.7	209.4	31.2	31.7	62.9	161.6	150.6	312.2
Employed	97.1	82.0	179.1	27.7	27.2	54.9	141.4	127.7	269.2
Full-time	87.4	65.2	152.5	25.8	21.5	47.3	129.3	100.4	229.7
Part-time	9.7	16.9	26.6	*1.9	5.7	7.5	12.1	27.4	39.5
Unemployed	14.5	15.7	30.2	3.5	4.5	8.0	20.2	22.9	43.0
Not in labour force	5.5	7.7	13.2	*1.4	*2.4	3.8	9.2	14.2	23.4
Total	117.2	105.4	222.6	32.6	34.1	66.7	170.8	164.8	335.6
					— per	cent —			
Unemployment rate	13.0	16.1	14.4	11.2	14.3	12.8	12.5	15.2	13.8
Participation rate	95.3	92.7	94.1	95.7	93.0	94.3	94.6	91.4	93.0

### LEAVERS FROM EDUCATIONAL INSTITUTIONS(a): LABOUR FORCE STATUS AND AGE, MAY 1989

(a) Leavers from educational institutions are persons who were full-time students at some time in the previous year but are not currently full-time students. (b) Includes leavers aged 25 to 64.

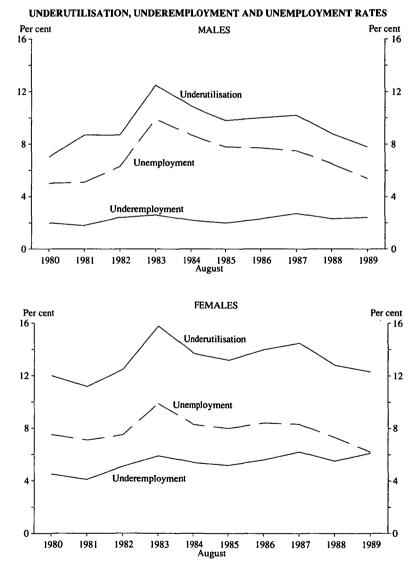
## CIVILIAN POPULATION AGED 15 AND OVER(a): EDUCATIONAL ATTAINMENT AND LABOUR FORCE STATUS, FEBRUARY 1989

		Employed			1 - t	Not in		Unemp-	
Educational attainment	Full-time	Part-time	Total		Labour force	labour force	Total		pation rate r cent—
		MA	LES						
With post-school qualifications	2,145.9	95.2	2,241.1	82.5	2,323.6	448.8	2,772.4		83.8
Degree	478.8	27.2	506.0	18.0	524.0	67.6	591.6		88.6
Trade qualification or apprenticeship	1,125.2	36.3	1,161.5	41.5	1,203.0	272.5	1,475.5		81.5
Certificate or diploma	535.8	31.1	566.9	22.2	589.1	107.8	697.0		84.5
Other	6.1	*0.6	6.7	*0.7	7.5	*0.9	8.3	*10.0	89.6
Without post-school qualifications (b) Attended highest level of	2,026.2	150.3	2,176.5		2,396.3	803.1	3,199.5		74.9
secondary school available Did not attend highest level	488.3	63.2	551.4	48.7	600.1	130.8	730.9		82.1
of secondary school available Left at age—	1,523.2	86.5	1,609.7	168.8	1,778.6	658.1	2,436.6		73.0
18 and over	31.0	*2.0	33.0	4.2	37.2	6.3	43.5		85.6
16 or 17	610.2	26.4	636.7	61.4	698.1	90.7	788.7		88.5
14 or 15	758.5	45.7	804.2	89.1	893.3	401.4	1,294.7		69.0
13 and under	123.5	12.4	135.9	14.1	150.0	159.7	309.7		48.4
Never attended school	4.6	*0.3	4.9	*0.7	5.6	11.1	16.7	*12.8	33.5
Still at school	*1.4	60.3	61.7	17.9	79.6	204.2	283.7	22.5	28.0
Total	4,173.5	305.7	4,479.3	320.2	4,799.4	1,456.1	6,255.6	6.7	76.7
		FEM	ALES						
With post-school qualifications	852.8	443.3	1,296,1	83.6	1,379.7	700.7	2,080.4		66.3
Degree	194.8	73.3	268.1	14.2	282.4	83.6	366.0		77.2
Trade qualification or apprenticeship	54.5	34.3	88.8	5.3	94.2	101.0	195.2		48.2
Certificate or diploma	598.5	331.1	929.6	61.4	990.9	505.3	1,496.2		66.2
Other	5.0	4.6	9.6	*2.7	12.3	10.8	23.0	*22.0	53.2
Without post-school qualifications (b) Attended highest level of	998.3	658.8	1,657.1	165.2	1,822.3	2,175.5	3,997.8	9.1	45.6
secondary school available Did not attend highest level	279.2	150.1	429.3	48.3	477.6	257.4	735.0		65.0
of secondary school available Left at age—	711.5	503.3	1,214.8	115.1		1,881.9	3,211.8	8.7	41.4
18 and over	17.8	4.6	22.3	*2.8	25.1	17.9	43.0		58.5
16 or 17	315.6	181.8	497.4	49.8	547.2	394.4	941.7		58.1
14 or 15	338.4	287.5	625.9	58.3		1,168.3	1,852.4		36.9
13 and under	39.7	29.5	69.2	4.2	73.4	301.3	374.7		19.6
Never attended school	*3.0	*1.8	4.7	*0.7	5.5	29.1	34.6	*13.4	15.8
Still at school	*0.8	82.1	82.9	19.4	102.3	182.0	284.3	19.0	36.0
Total	1.852.0	1.184 2	3,036.1	268.2	3,304.4	3 058 1	6.362.5	8.1	51.9

(a) Excludes visitors to private dwellings, some patients in hospitals and sanatoriums and inmates of reformatories, gaols, etc. (b) Includes persons for whom secondary school qualifications could not be determined.

In the light of the changing economic and social conditions of recent years, there is increasing concern whether the labour offered by individuals can be considered to be 'adequately utilised' by the labour market. A person's labour is deemed to be underutilised if the person is either unemployed or underemployed. Underemployment is deemed to exist when a person who usually works full-time does not work full-time in the reference period for economic reasons, which includes stand downs, short time, or insufficient work, or when a person who worked part-time indicated a preference to work more hours.

Underutilisation, underemployment and unemployment are summarised in the following graphs in which each category is expressed as a percentage of the labour force.



Source: Employment, Underemployment Australia, 1966-1983 (6246.0). The Labour Force, Australia (6203.0).

# Employment

This section provides a statistical summary of employment in Australia. Broadly, a person is considered to be employed if he or she is doing any work at all, regardless of the number of hours worked. In the statistics, employment is presented according to the demographic characteristics of employed persons, their occupation and industry, hours worked and whether they are full-time or part-time workers. Data for employed wage and salary earners by whether they work in the private or government sector and estimates for apprentices and qualified tradespersons are also included in this section. Most of the statistics on employment have been derived from the ABS monthly Labour Force Survey, the exception being the two tables on employed wage and salary earners by sector which were derived from the quarterly Survey of Employment and Earnings.

By relating employment levels to population levels, the magnitude of job growth in the economy can be evaluated. The measure relating these two levels is the employment/population ratio. Its usefulness lies in the fact that while movements in the employment level reflect net changes in the levels of persons holding jobs; movements in the ratio reflect net changes in the number of jobholders relative to changes in the size of the population. Note that while a rise in employment may not appear as a rise in the ratio because of continuous population growth, a decrease in employment will always appear as a fall in the ratio.

	Age gro	up (years)							_
August	15-19	2024	25-34	35-44	45-54	55-59	60-64	65 and over	Total
				MALES					
1984	46.0	76.6	87.8	89.9	84.9	72.6	39.9	8.8	69.1
1985	46.6	78.6	87.7	90.6	85.7	71.1	39.3	8.6	69.3
1986	47.6	78.1	88.4	90.0	85.1	71.2	42.3	8.3	69.3
1987	47.1	78.2	88.0	90.0	85.7	70.2	41.6	8.4	69.1
1988	47.9	80.3	88.5	90.6	83.4	68.9	43.3	8.3	69.3
1989	52.0	82.1	89.9	90.0	86.1	71.5	46.2	8.4	70.9
				FEMALE	s				
1984	44.7	64.4	51.0	55.4	47.8	26.6	·11.4	2.5	40.9
1985	46.4	65.9	53.3	58.2	48.0	26.1	11.1	1.9	42.0
1986	45.5	67.3	55.5	60.8	52.0	27.5	12.5	1.9	43.6
1987	43.2	67.7	57.2	61.8	52.8	29.5	13.1	2.6	44.3
1988	47.1	67.6	58.0	65.0	54.8	30.5	14.0	2.5	45.8
1989	48.8	71.3	61.2	67.1	_56.9	31.3	13.3	2.2	47.6
				PERSONS	S				
1984	45.3	70.5	69.4	72.9	66.8	49.9	25.2	5.1	54.8
1985	46.5	72.3	70.5	74.7	67.3	48.9	24.8	4.8	55.5
1986	46.6	72.7	71.9	75.6	69.0	49.7	27.1	4.6	56.3
1987	45.2	73.0	72.6	76.0	69.7	50.2	27.1	5.0	56.5
1988	47.5	74.0	73.2	77.9	69.5	50.0	28.4	5.0	57.4
1989	50.4	76.8	75.6	78.7	71.9	51.7	29.6	4.8	59.1

EMPLOYED PERSONS: EMPLOYMENT/POPULATION RATIOS (a) (per cent)

(a) Employment/population ratio for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 and over in the same group.

The table below presents the status of worker for employed persons. Employers, self-employed persons and wage and salary earners are those who, during the reference week, worked for one hour or more for pay, profit, commission or payment in kind in a job or a business, or on a farm. From April 1986, unpaid family helpers are those who, during the reference week, worked for one hour or more without pay in a family business or on a farm. Prior to April 1986, when a new definition was introduced, unpaid family helpers were those who worked for 15 hours or more without pay in a family business or on a farm.

August	Employers	Self-employed	Wage and salary earners	Unpaid family helpers	Total
1984	336.2	683.2	5,425.7	21.1	6,466.1
1985	351.9	713.5	5,582.6	27.6	6,675.6
1986	346.0	749.7	5,756.9	66.0	6,918.6
1987	363.2	732.2	5,937.8	59.1	7,092.3
1988	379.9	745.2	6,161.9	66.4	7,353.4
1989	369.8	774.1	6,531.1	52.5	7,727.6

# EMPLOYED PERSONS: STATUS OF WORKER ('000)

A measure of the relative importance of an industry is the size of its workforce. Also of interest is the work effort of that workforce as measured by hours worked. Taken together, employment and hours worked by industry serve as an indicator of labour supplied to that industry. The following table shows the distribution of employed persons by industry and average hours worked.

		Number ('O	)00)	Average	weekly hou	rs worked
Industry	Males	Females	Persons	Males	Females	Persons
Agriculture, forestry, fishing and hunting	291.3	115.0	406.2	46.0	26.8	40.5
Mining	94.1	11.3	105.4	42.2	35.1	41.5
Manufacturing	895.3	340.7	1,236.0	40.9	33.4	38.8
Food, beverages and tobacco	133.3	59.4	<sup>.</sup> 192.6	40.8	31.1	37.8
Metal products	170.2	33.6	203.7	41.5	32.4	40.0
Other manufacturing	591.9	247.8	·839.7	40.7	34.0	38.8
Electricity, gas and water	103.0	10.4	113.4	36.4	31.6	36.0
Construction	526.0	75.4	601.4	40.9	20.6	38.3
Wholesale and retail trade	871.5	735.4	1,606.9	41.0	27.7	34.9
Transport and storage	325.1	82.4	407.5	40.9	31.9	39.1
Communication	101.5	38.3	139.8	36.5	31.6	35.2
Finance, property and business services	451.2	424.0	875.2	42.0	31.8	37.1
Public administration and defence	197.3	126.7	324.0	36.2	30.7	34.0
Community services	476.5	880.4	1,356.9	39.4	29.2	32.8
Recreation, personal and other services	239.0	315.7	554.7	39.0	28.3	32.9
Total	4,571.9	3,155.7	7,727.6	40.7	29.5	36.1

## EMPLOYED PERSONS BY INDUSTRY AND AVERAGE WEEKLY HOURS WORKED AUGUST 1989

The following table sets out the distribution of employed persons across occupations.

EMPLOYED	PERSONS BY	OCCUPATION,	AUGUST	1989

('000)

Occupation (a)	Males	Married females	All females	Persons
Managers and administrators	631.4	154.2	189.8	821.2
Professionals	585.5	225.1	375.1	960.6
Para-professionals	251.5	124.8	202.3	453.8
Tradespersons	1,115.4	69.3	124.3	1,239.7
Clerks	306.2	631.8	1,011.6	1,317.9
Salespersons and personnel service workers	399.8	359.9	729.1	1,128.9
Plant and machine operators, and drivers	501.7	74.9	102.7	604.4
Labourers and related workers	780.3	286.9	420.8	1,201.1
Total	4,571.9	1,926.9	3,155.7	7,727.6

(a) Classified according to the Australian Standard Classification of Occupations (ASCO), 1986.

Full-time workers are those who usually work 35 hours or more a week or who worked 35 hours or more during the reference week. Part-time workers are those who usually work less than 35 hours a week and who did so during the reference week. Estimates of these workers by sex and age are shown in the following table.

#### EMPLOYED PERSONS: FULL-TIME AND PART-TIME WORKERS BY AGE AUGUST 1989 ('000)

				(000)					
	Age grou	o (years)-	_						
	15-19	20–24	25-34	35-44	45-54	55-59	60–64	65 and over	Total
				MALES					
Full-time workers Part-time workers	254.7 117.3	495.1 53.9	1,195.5 47.1	1,104.9 34.1	743.4 26.7	241.2 23.8	143.7 24.0	38.9 27.4	4,217.5 354.4
Total	372.0	549.1	1,242.6	1,139.1	770.1	265.0	167.7	66.3	4,571.9
				FEMALE	S				
Full-time workers Part-time workers	175.8 160.0	365.5 102.7	534.8 309.3	453.5 384.2	270.1 215.0	61.6 51.0	20.1 •28.8	10.2 13.3	1,891.5 1,264.2
Total	335.8	468.2	844.0	837.6	485.1	112.6	49.0	23.5	3,155.7

Estimates of employed wage and salary earners by sector are contained in the following tables. The estimates shown are derived from the quarterly Survey of Employment and Earnings.

#### EMPLOYED WAGE AND SALARY EARNERS: SECTOR BY STATES AND TERRITORIES JUNE 1989 (1000)

				('000)					
Sector	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Private	1,561.5	1,253.5	683.0	362.4	363.2	95.9	36.0	53.0	4,408.5
Public	566.6	453.8	255.4	149.8	161.0	53.6	21.7	70.3	1,732.3
Commonwealt	h 135.3	94.7	49.9	32.6	24.2	9.3	4.8	69.8	420.5
State(a)	370.8	313.8	177.5	109.1	126.3	40.7	16.0		1,154.8
Local	60.4	45.3	28.1	8.2	10.5	3.6	0.9	• •	157.0
Total	2,128.1	1,707.3	938.4	512.2	524.2	149.6	57.7	123.3	6,140.8

(a) Includes employees of the New South Wales State Government employed in the Australian Capital Territory.

•		Priva	te sector		Public sector			
Industry	Sept. 1988	Dec. 1988	Mar. 1989	June 1989	Sept. 1988	Dec. 1988	Mar. 1989	June 1989
Agriculture, forestry, fishing and								
hunting (a)					7.8	7.8	7.7	7.5
Mining	76.0	78.2	78.6	76.2	6.9	6.8	6.8	6.9
Manufacturing	990.8	1,027.3	1,044.4	1,020.5	44.1	43.1	42.8	40.7
Electricity, gas and water	4.3	4.1	4.1	3.8	122.9	120.4	119.8	119.0
Construction	247.4	252.4	254.0	264.8	41.2	40.8	41.0	40.2
Wholesale and retail trade	1,264.1	1,294.4	1,301.4	1,280.7	4.5	4.4	4.1	4.2
Transport and storage	152.9	165.9	167.5	173.1	139.0	139.3	138.5	136.9
Communication	0.6	0.6	0.5	1.2	126.9	127.5	126.8	127.1
Finance, property and business services	633.8	652.7	669.8	663.7	104.3	103.4	105.1	106.1
Public administration and defence (b)	_		—		377.3	317.0	317.6	315.4
Community services	465.3	460.7	481.6	492.1	799.0	788.1	782.5	803.1
Health	227.4	223.3	233.4	232.3	288.9	286.5	290.8	292.6
Education	100.9	103.4	106.5	109.3	388.5	381.0	369.7	384.7
Other	137.1	134.1	141.7	150.5	121.6	120.6	122.0	125.7
Recreation, personal and other services	425.4	432.8	432.3	432.3	25.4	25.7	25.8	25.3
Total all industries	4,260.6	4,369.2	4,434.2	4,408.5	1,799.3	1,724.3	1,718.5	1,732.3

# EMPLOYED WAGE AND SALARY EARNERS: INDUSTRY BY SECTOR ('000)

(a) Out of scope of survey for private sector. (b) Excludes members of permanent defence forces and employees of overseas embassies, consulates etc.

A table on sector and industry of apprentices and the year of their apprenticeship follows. The data were derived from the Transition from Education to Work Supplementary Survey conducted in May 1989.

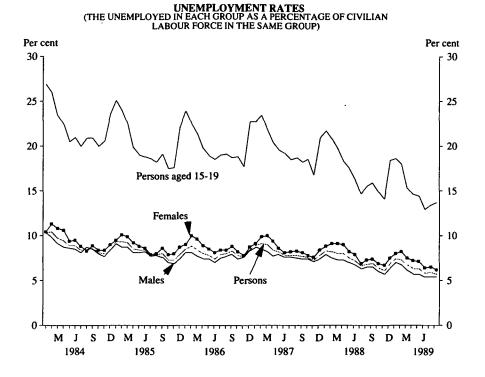
	First	Second	Third	Fourth(a)	Total
Industry —					
Manufacturing	16.6	13.3	11.0	8.0	49.0
Construction	12.7	8.6	6.2	7.3	34.8
Wholesale and retail trade	11.9	11.7	10.0	10.0	43.7
Recreation, personal and other services	7.7	5.4	4.4	4.2	21.7
Other (b)	7.1	8.5	5.4	5.2	26.2
Sector —					
Public	5.3	5.5	4.2	3.8	18.8
Private (c)	50.8	42.0	32.9	31.0	156.7
Total	56.1	47.6	37.0	34.8	175.5

## APPRENTICES: SECTOR AND INDUSTRY, MAY 1989 ('000)

(a) Includes a small number of fifth year apprentices. (b) Includes agriculture, etc.; mining; electricity, gas and water; transport and storage; communication; community services; finance, property and business services; and public administration and defence. (c) Includes a small number of persons for whom sector could not be determined.

t

Unemployment



The unemployment statistics presented in this section have been derived from the ABS monthly Labour Force Survey and its supplementaries.

Broadly, a person is considered to be unemployed if he or she satisfies three criteria—not employed, available for work, and taking active steps to find work. The most important characteristics presented include their demographic composition, the duration of unemployment and their educational qualifications. Also shown are some summary statistics on job vacancies.

Measures of unemployment provide one indicator of the underutilisation of labour. The two most important measures are the number of persons unemployed and the unemployment rate. The unemployment rate is defined as the number of unemployed expressed as a percentage of the size of the labour force.

By examining particular groups and characteristics of the unemployed, various economic and social aspects of unemployment can be analysed. While the aggregate unemployment rates shown above are important overall indicators, full-time and part-time unemployment levels and rates for different age groups by sex and marital status are also important. This information is set out in the table below, along with whether those aged 15-24 are looking for their first job.

	N	lumber und	employed (	'000)	Uner	nployment	t rate (pe	r cent)
Age	Males	Married females	All females	Persons	Males	Married females	All females	Persons
	LOO	KING FOR	FULL-TI	ME WOR	к			
Aged 15-19	37.5	*2.9	34.4	71.9	12.8	*29.0	16.4	14.3
Looking for first job	13.5	*0.8	14.8	28.3				
Attending school Attending a tertiary educational institution	*3.1	*0.0	*2.4	5.5	n.a.	n.a.	n.a.	n.a.
full-time	*2.1	*0.0	*1.7	3.8	n.a.	n.a.	n.a.	n.a.
Aged 20 and over	193.2	43.7	105.0	298.2	4.6	4.1	5.8	5.0
20-24	43.5	7.1	33.3	76.8	8.1	6.7	8.4	8.2
Looking for first job	4.5	*0.8	3.8	8.3				
25-34	63.0	18.5	34.2	97.2	5.0	5.5	6.0	5.3
35-44	40.2	10.5	22.5	62.7	3.5	3.3	4.7	3.9
45-54	22.7	6.0	13.2	35.9	3.0	2.9	4.6	3.4
55 and over	23.7	*0.3	*1.8	25.6	5.3	*0.5	*2.0	4.7
Aged 15-64	230.7	46.6	139.4	370.1	5.2	4.4	6.9	5.8
Total	230.7	46.6	139.4	370.1	5.2	4.4	6.9	5.7
	LOO		PART-T	ME WOR				
Aged 15-19	17.4	*0.3	23.0	40.4	12.9	*8.1	12.6	12.7
Attending school	11.5	*0.0	15.6	27.1	13.1	*0.0	14.3	13.8
Attending a tertiary educational institution								
full-time	4.5	*0.0	5.7	10.2	17.0	*0.0	15.4	16.1
Aged 20 and over	12.6	32.4	46.3	58,9	5.0	3.5	4.0	4.2
20–24	4.1	*1.8	7.0	11.1	7.1	*5.4	6.3	6.6
Attending a tertiary educational institution	•							
full-time	*3.3	*0.2	3.6	6.9	*10.5	*29.3	10.7	10.6
25-34	3.8	13.8	18.2	22.0	7.5	5.0	5.6	5.8
35–44	*1.1	9.0	11.0	12.1	*3.1	2.5	2.8	2.8
45 and over	3.5	7.7	10.1	13.6	3.3	2.9	3.2	3.2
Aged 15-64	29.2	32.4	69.0	98.2	8.2	3.5	5.2	5.9
Total	30.0	32.7	69.3	99.3	7.8	3.5	5.2	5.8

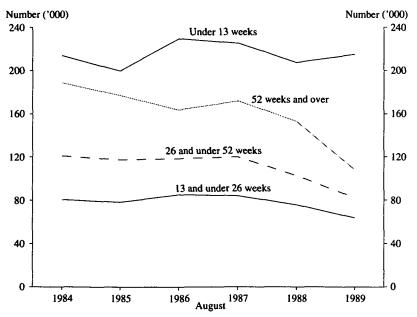
### UNEMPLOYED PERSONS: AGE AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, AUGUST 1989

An important indicator of the severity of unemployment is the length of time a person is unemployed. Two views are presented—the chart depicts the increase in each duration of unemployment category from 1984 to 1989 while the table shows more detail as at August 1989. Note that in each case, only current and continuing periods of unemployment are shown rather than completed spells. This is because, in the monthly Labour Force Survey, duration of unemployment is the period from the time a person began looking for work or was laid off to the end of the reference week and only applies if the person is still unemployed.

								Looki	ng for
Duration of unemployment		Age group	(years)	-			Not	Full- time	Part- time
(weeks)	15-19	20–24	25–34	35-54	Total(a)	Married	married	work	work
					-'000				
Under 2	12.8	9.4	11.9	11.4	47.3	19.6	27.7	28.3	19.0
2 and under 4	15.3	11.1	15.1	11.6	54.8	19.7	35.1	35.6	19.2
4 and under 8	17.3	15.0	19.6	14.2	68.3	24.4	43.9	53.1	15.1
8 and under 13	12.3	6.5	13.6	9.5	44.6	17.9	26.7	33.4	11.3
13 and under 26	16.7	13.7	17.4	13.8	63.8	23.4	40.4	53.7	10.1
26 and under 39	16.5	10.4	14.6	16.6	62.5	24.0	38.6	48.2	14.4
39 and under 52	4.9	*2.2	4.8	6.1	19.9	8.2	11.8	18.5	*1.5
52 and under 65	5.4	5.1	4.8	5.7	23.7	9.5	14.2	20.7	*3.0
65 and under 104	4.8	3.9	4.6	4.5	19.4	7.7	11.7	17.5	*1.9
104 and over	6.4	10.5	12.8	25.3	65.1	32.6	32.6	61.1	4.0
Total	112.4	87.9	119.2	118.8	469.4	186.8	282.6	370.1	99.3
Average duration—									
Mean	25.5	34.7	36.8	64.9	44.5	53.4	38.6	51.5	18.3
Median	12	13	12	22	15	16	14	18	5

UNEMPLOYED PERSONS: DURATION OF UNEMPLOYMENT AND AGE, AUGUST 1989

(a) Includes persons aged 55 and over, details for whom are not shown separately.



#### **UNEMPLOYED PERSONS: DURATION OF UNEMPLOYMENT**

Also of interest is the industry and occupation of their last full-time job. These estimates are set out in the table which follows.

		Total ('00		Unemployment rate (per cent)			
	Males	Females	Persons	Males	Females	Persons	
Had worked full time for two weeks or more							
in the last two years	158.6	96.0	254.7	3.4	3.0	3.2	
Industry—							
Agriculture, forestry, fishing and hunting	11.2	*3.1	14.3	3.7	*2.6	3.4	
Agriculture and services to agriculture	8.9	*2.9	11.8	3.2	*2.5	3.0	
Manufacturing	37.5	15.4	52.9	4.0	4.3	4.1	
Food, beverages and tobacco	6.1	5.3	11.4	4.4	8.1	5.6	
Metal products	9.5	*1.0	10.4	5.3	*2.8	4.9	
Other manufacturing	21.9	9.2	31.1	3.6	3.6	3.6	
Construction	24.9	*1.0	25.9	4.5	*1.3	4.1	
Wholesale and retail trade	34.3	30.0	64.3	3.8	3.9	3.8	
Wholesale trade	11.4	5.2	16.6	3.3	3.3	3.3	
Retail trade	22.9	24.8	47.7	4.1	4.1	4.1	
Transport and storage	9.5	*2.0	11.5	2.8	*2.3	2.7	
Finance, property and business services	8.6	9.8	18.4	1.9	2.3	2.1	
Public administration and defence	5.2	*3.0	8.2	3.6	*2.3	2.5	
Community services	7.9	17.1	25.0	1.6	1.9	1.8	
Recreation, personal and other services	11.8	13.4	25.1	4.7	4.1	4.3	
Other industries	7.7	*1.3	9.0	2.5	*2.1	2.4	
Occupation major group $(a)$							
Managers and administrators	9.6	*2.5	12.1	1.5	*1.3	1.5	
Professionals	8.4	5.0	13.4	1.4	1.3	1.4	
Para-professionals	4.3	*3.4	7.7	1.7	*1.7	1.7	
Tradespersons	31.1	4.9	36.0	2.7	3.8	2.8	
Clerks	8.4	24.6	33.0	2.7	2.4	2.4	
Salespersons and personal service workers	14.5	31.1	45.5	3.5	4.1	3.9	
Plant and machine operators, and drivers	19.9	4.8	24.7	3.8	4.5	3.9	
Labourers and related workers	62.5	19.7	82.2	7.4	4.5	6.4	
Other (b)	98.2	105.4	203.6				
Looking for first job	35.5	44.1	79.5				
Looking for full-time work	20.7	22.6	43.3				
Former workers	62.7	61.3	124.1				
Stood down	3.9	7.3	11.1	• •	• •		
Total	260.7	208.7	469.4	5.4	6.2	5.7	

### UNEMPLOYED PERSONS: INDUSTRY AND OCCUPATION OF LAST FULL-TIME JOB AUGUST 1989

(a) Classified according to the Australian Standard Classification of Occupations (ASCO), 1986. (b) Had never worked for two weeks or more in a full-time job or had not done so in the last two years; industry and occupation were not obtained for these persons.

# UNEMPLOYED PERSONS: ACTIVE STEPS TAKEN TO FIND FULL-TIME OR PART-TIME WORK, JULY 1988

	Loc	oking for full	-time w	ork	Lo	rt-time w	ork	
	Males	Females	Pers	sons	Males	Females	Pers	ons
Active steps taken to find work during current period of unemployment		`000		(per cent)				(per cent)
Registered with the CES and-								
Took no other active steps	*2.9	*1.9	4.8	1.1	*0.3	*2.1	*2.4	*3.1
Contacted prospective employers	224.0	109.9	333.9	78.3	6.2	20.9	27.1	35.3
Took other active steps	18.8	8.2	26.9	6.3	*0.5	*3.2	*3.7	*4.8
Total	245.7	119.9	365.6	85.7	7.0	26.2	33.2	43.2
Not registered with the CES and								
Contacted prospective employers	27.8	29.7	57.4	13.5	10.7	27.4	38.1	49.6
Took other active steps	*1.7	*2.0	*3.7	*0.9	*1.6	*3.9	5.5	7.2
Total	29.5	31.6	61.1	14.3	12.3	31.3	43.6	56.8
Total	275.1	151.6	426.7	100.0	19.2	57.5	76.8	100.0

The number of unemployed persons shown above will differ from the number of unemployed persons shown in *The Labour Force, Australia* (6203.0). This is because the latter includes persons who are waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the reference week (including the whole of the reference week) for reasons other than bad weather or plant breakdown. Active steps taken to find work (also shown above) comprise writing, telephoning or applying in person to an employer for work; answering a newspaper advertisement for a job; checking factory or Commonwealth Employment Service (CES) noticeboards; being registered with the CES; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

# Job Vacancies

Job vacancy statistics taken together with unemployment statistics assist in the assessment of the demand for labour. However, unemployment and job vacancy statistics should be regarded as complementary indicators. This is because the monthly Labour Force Survey (which collects unemployment) and a quarterly survey of employers (which collects job vacancies) utilise different collection methodologies, sample designs, definitions and concepts.

A job vacancy is a job available for immediate filling on the survey date and for which recruitment action had been taken by the employer. Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying public or private employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the enterprise or organisation. Excluded are jobs available only to existing employees of the organisation; vacancies of less than one day's duration; vacancies to be filled by persons already hired or by promotion or transfer of existing employees; vacancies to be filled by employees returning from paid or unpaid leave or after industrial dispute(s); vacancies not available for immediate filling on the survey date; vacancies not available within the particular State or Territory to which the survey return relates; vacancies for work carried out under contract; vacancies for which no effort is being made to fill the position and vacancies which are available only to persons employeed by government departments or authorities.

Statistics on job vacancies are produced from a survey conducted each quarter. Background information about the job vacancies series is provided in *Information Paper: New Statistical Series: Employment, Average Weekly Earnings, Job Vacancies and Overtime* (6256.0) issued on 21 June 1984.

			(000)											
Month	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.					
1985 May	22.3	16.8	4.7	3.6	4.3	1.2	1.1	2.5	56.6					
1986 May	21.1	16.8	4.6	2.6	4.1	1.3	1.1	2.7	54.4					
1987 May	19.9	17.6	4.0	3.5	5.5	1.0	0.7	1.6	53.8					
1988 May	22.0	18.6	6.6	3.1	4.8	0.7	0.7	1.9	58.5					
1989 May	26.3	24.1	10.4	3.5	4.5	0.9	1.1	2.3	73.1					

JOB VACANCIES: STATES AND TERRITORIES ('000)

#### JOB VACANCY RATES(a): STATES AND TERRITORIES (per cent)

			NE						_
Month	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
1985 May	1.2	1.2	0.6	0.8	1.0	0.9	2.3	2.3	1.1
1986 May	1.1	1.1	0.6	0.5	0.9	0.9	2.0	2.0	1.0
1987 May	1.1	1.2	0.5	0.7	1.1	0.7	1.5	1.3	1.0
1988 May	1.0	1.2	0.8	0.7	0.9	0.5	1.3	1.4	1.0
1989 May	1.2	1.5	1.2	0.7	0.9	0.6	1.9	1.7	1.2

(a) Job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.

# **Persons Not in the Labour Force**

Persons not in the labour force represent that group of the population who, during a particular week, are not employed or unemployed. Interest in this group centres primarily around their potential to participate in the labour force.

In this section, information has been derived from the supplementary survey of Persons not in the Labour Force. Attention is given to demographic characteristics as well as focussing on degree of attachment to the labour force. Aspects such as whether they want a job, or whether they are discouraged jobseekers, are emphasised.

	( 000	,			-	
	Sept. 1985	March 1986	Sept. 1986	March 1987	March 1988	Sept. 1988
Persons in the labour force	7,353.6	7,520.8	7,589.9	7,771.2	7,966.8	7,993.2
Persons not in the labour force	3,568.1	3,507.5	3,551.4	3,496.7	3,520.2	3,620.4
With marginal attachment to the labour						
force	727.2	697.4	737.2	696.4	725.0	721.7
Wanted to work and were actively						
looking for work	60.4	35.2	57.0	31.1	33.6	65.7
Were available to start work within						
four weeks	30.2	25.0	26.7	23.6	26.9	34.8
Were not available to start work						
within four weeks	30.2	10.2	30.3	7.6	6.7	30.9
Wanted to work but were not actively						
looking for work and were available to	D					
start work within four weeks	666.9	662.3	680.2	665.3	691.4	656.0
Discouraged jobseekers	83.0	91.5	83.6	94.4	92.0	83.8
Other	583.8	570.7	596.5	570.9	599.4	572.2
Without marginal attachment to the labour	r					
force	2,840.8	2,810.1	2,814.2	2,800.3	2,795.2	2,898.8
Wanted to work but were not actively						
looking for work and were not availab	ole					
to start work within four weeks	262.5	259.6	259.9	231.8	250.3	281.3
Did not want to work	2,479.8	2,446.6	2,453.8	2,460.9	2,437.8	2,515.7
Permanently unable to work	30.0	33.3	35.5	28.8	37.5	37.2
Institutionalised(a) and boarding school						
pupils	68.5	70.5	65.0	78.8	69.5	64.7
Civilian population aged 15 to 69	10,921.7	11,028.3	11,141.3	11,267.9	11,487.0	11,613.6

CIVILIAN POPULATION AGED 15 TO 69: LABOUR FORCE STATUS ('000)

(a) Includes patients in hospitals and sanatoriums and inmates of reformatories, gaols, etc.

Persons with marginal attachment to the labour force are those who were not in the labour force in the reference week and wanted to work and were available to start work within four weeks; or were actively looking for work but were not available to start work within four weeks. Discouraged jobseekers, a sub-category of those with marginal attachment, are those persons who wanted to work and were available to start work within four weeks but whose main reason for not taking active steps to find work was that they believed they would not be able to find a job for any of the following reasons:

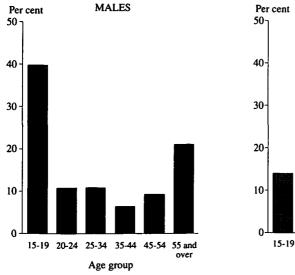
- considered by employers to be too young or too old;
- difficulties with language or ethnic background;
- lacked the necessary schooling, training, skills or experience;
- no jobs in their locality or line of work, or no jobs at all.

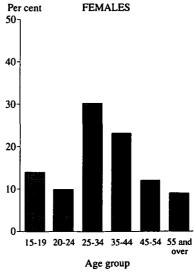
The following table gives an age and sex breakdown for persons with marginal attachment. Females account for 73.6 per cent of the marginally attached. While the age distribution of females with marginal attachment is similar to that of females in the labour force, teenage males (15 to 19) are over-represented among males with marginal attachment to the labour force, accounting for 40.1 per cent of that group.

### PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE: AGE, SEPTEMBER 1988 ('000)

	actively Were available		ud were	w act availa	ble to sta	vere not king for nd were ert work		0	
A	to start work within four weeks	to start work within four weeks	Total	Discour- aged job-	vithin fou 	Total	n Males	Per. narginal al to the lab  Females	our force
Age group (years)									Persons
15-19	9.2	19.7	28.9		115.7	123.7	76.5	76.1	152.6
2024	5.4	6.2	11.6		60.0	63.6	21.2	54.0	75.2
25–34	8.9	*2.1	10.9		159.3	172.1	21.4	161.7	183.0
3544	5.9	*1.7	7.6	15.3	114.4	129.7	12.8	124.5	137.3
45–54	*3.9	*0.7	4.6	14.8	64.0	78.9	18.4	65.1	83.5
55-59	*1.1	*0.0	*1.1	12.4	26.4	38.8	12.9	27.0	39.9
6064	*0.4	*0.6	*1.0	9.9	19.2	29.0	14.6	15.4	30.0
65–69	*0.0	*0.0	*0.0	7.1	13.1	20.2	13.1	7.1	20.2
Total	34.8	30.9	65.7	83.8	572.2	656.0	190.8	530.9	721.7

## PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE: AGE AND SEX, SEPTEMBER 1988





# Superannuation

In the November 1988 supplementary survey to the Labour Force Survey, persons aged 15 to 74 were asked whether they were covered by a superannuation scheme and, if so, details of that scheme. The survey provides information on those persons covered by superannuation schemes, those previously covered and those not covered. Details of gross weekly pay, expected main source of income and full-time or part-time status are also collected. A summary of the results of the survey is shown in the following tables.

### PERSONS AGED 15 TO 74: COMPARATIVE PROFILE OF PERSONS COVERED BY A SUPER-ANNUATION SCHEME AND PERSONS NOT COVERED BY A SUPERANNUATION SCHEME, NOVEMBER 1988 ('000)

Total Covered Not covered Males Females Persons Males Females Persons Males Females Persons Labour force status -Employed 2,673.3 1,072.8 3,746.1 1,692.1 1,865,4 3,557,5 4,365,4 2,938,2 7,303,6 Full-time workers 2,626.4 865.4 3,491.8 1,509.6 983.1 2,492.7 4,136.1 1,848.5 5,984.5 Part-time workers 46.9 207.4 254.3 182.5 882.3 1,064.8 229.4 1,089.7 1,319.1 7.8 \*4.3 445.8 Unemployed 12.1 195.0 433.7 246.5 199.3 238 7 Not in labour force 19.2 38.8 57.9 1,048.8 2,509.2 3,558.0 1,067.9 2,548.0 3,615.9 Age group -15-19 70.2 29.3 99.6 302.5 303.8 606.3 372.8 333.1 705.8 20-24 224.7 153.8 378.5 422.1 506.2 928.3 646.8 659.9 1.306.8 25-34 786.6 1,586.2 1,345.5 326.6 1,113.2 558.9 1,027.3 1,353.9 2,699.4 35-44 812.1 344.1 872.5 1,298.8 1,238.4 1,216.6 2,455.0 1,156.2 426.3 45-54 547.4 192.6 740.0 308.9 629.4 938.3 856.3 822.0 1,678.4 55-64 247.5 68.1 315.5 473.5 657.5 1,131.0 721.0 725.5 1.446.5 65-74 11.8 \*1.4 13.2 487.2 573.0 1,060.2 499.0 574.4 1,073.4 Family status -2.281.9 3,793.6 6,128.5 4,616.7 4,696.6 9,313.3 Member of a family (a) 902.9 3,184.8 2.334.8 Husband or wife 1,961.7 695.0 2,656.7 1,667.9 2,912.1 4,580.0 3,629.6 3,607.1 7,236.7 2,257.0 1,986.5 With dependents present 1,286.5 372.8 1,659.3 699.9 1,557.1 1,929.8 3,916.3 1,355.0 997.4 Without dependents present 675.2 967.9 2,323.0 1,643.1 1,677.3 3,320.4 322.2 Not-married family head 46.6 76.5 123.1 46.1 370.3 416.4 92.8 446.7 539.5 With dependents present 24.6 53.0 77.5 17.6 251.1 268.7 42.2 304.1 346.3 Without dependent present 119.1 147.7 1932 22.1 23 5 45.5 28.5 50.6 142.6 Other child/relative of family head 269.2 129.8 399.0 545.8 435.0 980.8 815.0 564.7 1,379.8 Not a member of a family 325.9 155.0 480.9 483.5 543.3 1,026.8 809.3 698.3 1,507.6 350.6 Living alone 175.3 79.0 254.3 236.5 587.1 411.9 429.6 841.5 150.6 439.6 Not living alone 76.0 226.5 246.9 192.7 397.5 268.7 666.2 Family status not determined 232.7 393.9 253.8 290.6 544.4 92.5 57.9 150.5 161.2 2,700.3 1,115.9 3,816.2 2,979.5 4,569.6 7,549.2 5,679.9 5,685.5 11,365.4 Total

(a) Includes full-time students aged 15 to 24.

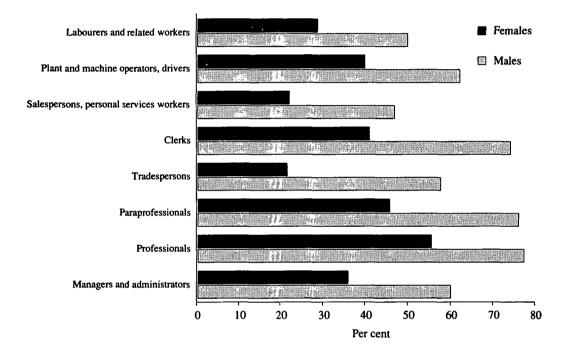
# FULL-TIME WORKERS AGED 15 TO 74: COMPARATIVE PROFILE OF PERSONS COVERED BY A SUPERANNUATION SCHEME AND PERSONS NOT COVERED BY A SUPERANNUA-TION SCHEME, NOVEMBER 1988 ('000)

			<b>'000</b> )						
		Covered		Na	t covered			Total	
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Age group									
15-19	68.1	27.1	95.3	183.6	154.7	338.3	251.7	181.8	433.6
20-24	217.1	144.7	361.8	261.3	223.1	484.4		367.8	846.2
25-34	765.6		1,021.1	394.8	247.1		1,160.3		1,663.0
35-44	795.6		1,052.2	309.3	192.1		1,104.9	448.8	
45-54	535.8		671.5	182.7	115.3	298.0		251.0	969.5
5564 6574	234.0 10.2		278.6 11.4	150.3 27.6	42.0 8.7	192.3 36.3	384.4 37.8	86.5 9.8	470.9 47.7
Family status-									
Member of a family $(a)$	2,223.2	672.5	2,895.7	1,189.2	776.1	1,965.3	3,412.4	1,448.6	4,861.1
Husband or wife	1,915.8	485.5	2,401.3	802.7	475.5	1,278.2	2,718.5	961.0	3,679.5
With dependants present	1,260.8	224.9	1,485.7	493.3	236.3	729.7	1,754.1	461.2	2,215.3
Without dependants present	655.0	260.6	915.6	309.4	239.2	548.6	964.4	499.8	1,464.2
Not-married family head	44.4	64.4	108.8	21.4	53.4	74.8	65.8	117.8	183.6
With dependants present	23.4	43.0	66.4	9.4	34.2	43.6	32.8	77.2	1 10.0
Without dependants present	21.0	21.4	42.4	12.1	19.2	31.3	33.0	40.6	73.6
Other child/relative of family head	260.5	122.6	383.2	359.3	246.1	605.4	619.8	368.7	988.6
Not a member of a family	314.3	145.0	459.3	241.0	147.8	388.9	555.3	292.9	848.2
Living alone	169.8	73.3	243.1	95.5	50.9	146.4	265.3	124.1	389.5
Not living alone	144.5	71.8	216.2	145.5	97.0	242.5		168.7	458.7
Family status not determined	88.9	47.9	136.8	79.4	59.1	138.5	168.3	107.0	275.3
Status of worker-								<i></i>	222.0
Employers	129.9		152.9	134.7	44.4	179.1	264.6	67.4	332.0
Self-employed/unpaid family helpers	177.2		194.4	266.8	90.2	357.0		107.4	551.4
Employees Payment in kind	2,319.3 *0.0		3,144.5 *0.0	1,106.3 *1.8	842.7 *5.8	1,949.0 7.6	3,425.6 *1.8	1,667.9 *5.8	5,093.5 7.6
Industry-									
Agriculture, forestry, fishing and huntin	o 113.2	15.8	129.0	174.6	39.9	214.5	287.8	55.7	343.5
Mining	78.3	*3.7	82.0	8.7	*2.8	11.5	87.0	*6.5	93.5
Manufacturing	592.1	123.9	716.0	299.8	133.6	433.4	891.9	257.5	
Electricity, gas and water	85.6		93.8	10.9	*2.3	13.2	96.5	10.6	107.0
Construction	262.2	*6.8	269.0	206.6	13.8	220.4	468.8	20.6	489.4
Wholesale and retail trade	379.6	116.1	495.7	359.7	246.6	606.2	739.3	362.7	1,101.9
Transport and storage	193.6	27.6	221.2	95.0	25.7	120.6	288.6	53.2	341.8
Communication	91.7	23.9	115.7	*4.0	*5.3	9.3	95.8	29.2	125.0
Finance, property and business services	243.1	126.4	369.5	115.8	160.1	276.0	358.9	286.6	645.5
Public administration and defence	175.3	78.0	253.2	30.7	20.6	51.3	206.0	98.5	304.5
Community services	332.7	302.2	634.8	94.7	224.8	319.6	427.4	527.0	954.4
Recreation, personal and other services	79.1	32.8	111.9	109.1	107.6	216.7	188.2	140.4	328.6
Occupation			100 0			a		100 -	
Managers and administrators	378.2		430.9	231.8	83.0	314.7	610.0	135.6	745.6
Professionals	405.8		577.0	105.6	80.8	186.3	511.3	252.0	763.4
Paraprofessionals	189.4		259.5	54.6		119.9	244.0	135.4	379.4
Tradespersons	618.0		639.5	432.6	64.3		1,050.6	85.9	
Clerks Salespersons and other personal service	215.5	325.5	541.0	63.7	314.5	378.2	279.2	640.0	919.1
workers	156.0	105.5	261.5	139.4	222.8	362.2	295.4	328.3	623.7
Plant and machine operators, and driver	s 289.8	38.5	328.3	167.3	46.7	214.0	457.1	85.2	542.3
Labourers and related workers	373.8		454.1	314.6		420.5		186.2	
Time in current job (years)-									
Under 5	1,042.9		1,494.2	1,068.4					3,334.3
5 and under 10	519.0	200.4	719.4	171.2	124.0	295.2			1,014.6
10 and under 15	396.3	110.1	506.4	90.9		130.3	487.1	149.5	636.6
15 and under 20	270.8		331.8	57.4		77.5		81.2	409.4
20 and over	397.4	42.6	440.1	121.8	27.7	149.5	519.2	70.4	589.6
Total	2,626.4	865.4	3,491.8	1,509.6	983.1	2,492.7	4,136.1	1,848.5	5,984.5

(a) Includes full-time students aged 15 to 24.

The following graph shows that amongst full-time workers, 63 per cent of males had superannuation coverage, compared with 47 per cent of female full-time workers. Occupation groups with a high proportion of full-time workers covered by superannuation were professionals, paraprofessionals, plant and machine operators and drivers, managers and administrators and tradespersons.

# FULL-TIME WORKERS AGED 15 TO 74: PERCENTAGE COVERED BY A SUPERANNUATION SCHEME AND OCCUPATION, NOVEMBER 1988



# **Persons Employed at Home**

In the April 1989 supplementary survey to the Labour Force Survey, persons aged 15 and over were asked information about the jobs in which they were employed at home.

Of the estimated 7,683,200 persons aged 15 and over who were employed in April 1989, 266,600 persons were employed at home; 33 per cent of those employed at home were aged between 35 and 44 and a further 26 per cent were aged 25 to 34.

Females accounted for 70 per cent of all persons who were employed at home, with 27 per cent of these working at home because their children were too young or they decided to look after children.

A summary of the results of the survey is shown in the following tables.

		Emple	oyed		
		Worked	some hours at hor	ne	
Age	Worked no hours at home	Usually worked less hours at home than elsewhere	Persons employed at home	Total(a)	Total
	····	MALES			
15-24	857.1	46.2	4.3	73.9	931.0
25-34	959.4	224.9	13.2	264.4	1,223.8
35-44	774.9	307.7	26.3	367.8	1,142.6
4554	529.8	180.4	17.0	232.5	762.2
5564	317.0	76.1	14.0	117.3	434.3
65 and over	37.3	14.3	5.5	32.4	69.7
Total	3,475.5	849.6	80.3	1,088.2	4,563.7
		FEMALE	ES		
15-24	762.7	36.4	7.7	50.0	812.6
25-34	629.9	129.7	57.0	199.3	829.2
35-44	582.4	142.7	62.0	227.9	810.3
45-54	358.7	66.8	37.4	123.7	482.4
55-64	113.4	20.7	18.2	51.1	164.5
65 and over	10.4	*2.2	4.0	10.1	20.5
Total	2,457.6	398.5	186.2	662.0	3,119.6
_		PERSON	IS		
15-24	1,619.8	82.6	12.0	123.9	1,743.7
25-34	1,589.3	354.6	70.2	463.6	2,053.0
3544	1,357.3	450.4	88.3	595.7	1,952.9
45–54	888.5	247.2	54.4	356.1	1,244.7
5564	430.4	96.7	32.1	168.4	598.8
65 and over	47.7	16.6	9.6	42.5	90.2
Total	5,933.0	1,248.1	266.6	1,750.2	7,683.2

### EMPLOYED PERSONS AGED 15 AND OVER: AGE AND WHETHER WORKED AT OR EMPLOYED AT HOME, APRIL 1989 ('000)

(a) Includes 235,400 persons comprising farmers (ASCO unit groups 1401 and 8201) who worked more hours at home than away in their main job, unpaid voluntary workers and persons who worked less than one hour at home.

# PERSONS EMPLOYED AT HOME: NUMBER OF HOURS USUALLY WORKED AT HOME AND WHETHER ALL HOURS USUALLY WORKED AT HOME, APRIL 1989

('000)

Number of		l hours usu orked at ho	-		ne hours u orked at ho			Total		
hours usually worked at home	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	
Under 20	6.4	69.6	76.1	11.7	29.1	40.9	18.2	98.8	116.9	
2029	3.7	21.3	25.0	6.4	6.4 9.6 16.0 10.1		30.9	41.1		
30-34	*1.8	7.2	9.0	5.9	4.4	10.3	7.7	11.6	.6 19.3	
35-39	*2.3	6.7	8.9	4.4	*2.8	7.2	6.7	9.5	16.1	
40 and over	19.7	27.7	47.4	18.0	7.8	25.7	37.7	35.4	73.1	
Total	33.9	132.5	166.4	46.4	53.8	100.2	80.3	186.2	266.6	

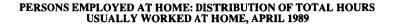
PERSONS EMPLOYED	AT HOME: INDUSTRY	AND WHETHER .	JOB WORKED AT HOME
	WAS MAIN JOB	, APRIL 1989	
	('000	))	

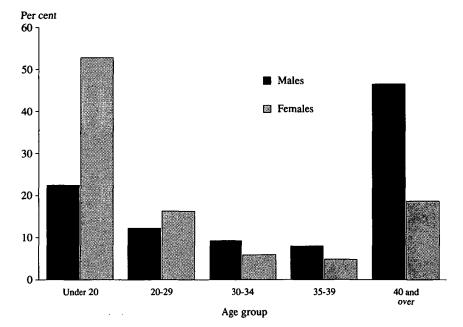
Whet	her job worked at	home was main job	
Industry	Main job	Second job	Total
Agriculture, forestry, fishing and hunting	8.7	*0.4	9.1
Manufacturing	31.9	*2.5	34.4
Construction	35.6	*2.3	37.9
Wholesale and retail trade	42.4	4.7	47.1
Transport and storage	8.5	*0.8	9.3
Finance, property and business services	41.1	6.0	47.1
Community services	37.7	3.5	41.2
Recreation, personal and other services	32.9	4.4	37.2
Other (a)	*2.7	*0.5	*3.2
Total	241.5	25.0	266.6

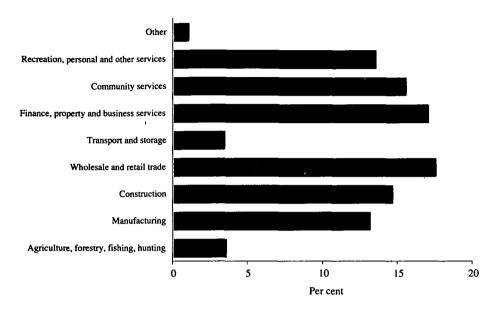
(a) Includes mining, electricity, gas and water, communication and public administration and defence.

Of those persons employed at home, 44 per cent usually worked less than 20 hours a week at home and 27 per cent usually worked over 40 hours.

Persons employed at home in their main job numbered 241,500. Of these persons 18 per cent were in wholesale and retail trade, 17 per cent were in finance, property and business services and a further 16 per cent were in community services.







## PERSONS EMPLOYED AT HOME: INDUSTRY OF MAIN JOB, APRIL 1989

# Wage Rates, Earnings and Income

## **Industrial conciliation and arbitration**

Legal minimum rates of pay for some 90 per cent of Australian wage and salary earners are prescribed in awards and determinations of Federal and State industrial tribunals or in collective agreements registered with them.

In June 1983 the Australian Conciliation and Arbitration Commission met to consider the formulation of new wage fixing principles in relation to the determination of national wage adjustments based on movements in the consumer price index (CPI).

On 23 September 1983, the Commission announced that it would try once again to operate a centralised system based on prima facie full indexation. Under this new system, the Commission was to adjust its award wages and salaries every six months in relation to the last two quarterly movements of the CPI unless it was persuaded to the contrary.

The subsequent round of hearings in February-March 1984 resulted in the recommendation of a 4.1 per cent increase based on CPI movements for the September and December 1983 quarters.

The hearings in February-March 1985 resulted in the recommendation of a 2.6 per cent increase based on CPI movements for the September and December 1984 quarters.

Following the National Wage Case hearings in October 1985, the Commission awarded an increase of 3.8 per cent to operate from the beginning of the first pay period to commence on or after 4 November 1985. The Commission also decided to defer discounting of wages for the price effects of devaluation until the next National Wage Case hearings.

In July 1986 the Commission awarded a 2.3 per cent increase, effective from 1 July 1986 in all States, except Queensland where it was effective from 7 July 1986.

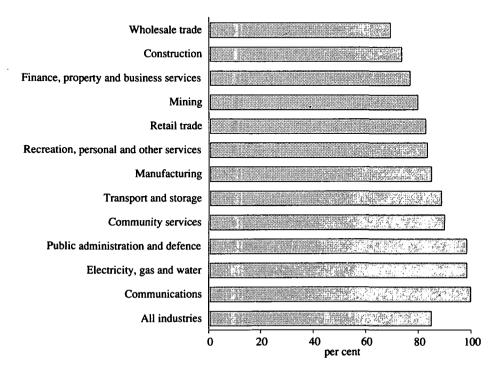
In March 1987, a two tier wage fixing system superseded the CPI-based indexation. The first tier was a flat increase of \$10 per week payable to all employees. The second tier was a percentage increase of up to 4 per cent, a maximum rate set by the Commission, negotiable between employees and employers.

In February 1988, the Commission awarded a flat \$6 which was effective from 5 February 1988. In September 1988, the Commission again handed down a decision which allowed for a pay increase which was to be paid in two parts. The first part was an increase of 3 per cent which was payable from 1 September 1988 and the second was an increase of \$10 which was not to be available less than 6 months after the first increase. Both increases were based on the Structural Efficiency principles as laid down by the Commission.

## **Incidence of industrial awards**

Details are shown of the award coverage of employees obtained as a part of a sample survey conducted in May 1985. The survey was designed primarily to provide statistics of the distribution and composition of weekly earnings and hours of employees. The award coverage estimates shown are based on responses to a question which asked if employees had coverage under an award, determination, or registered collective agreement.

Employees covered by awards, etc. are employees whose rates of pay and conditions of work are normally varied in accordance with variations in a specific federal or State award, determination or collective agreement or a specific unregistered collective agreement (unregistered collective agreements dealing only with over-award pay are not included). Employees not covered by awards, etc. are those employees whose rates of pay and conditions of work are not varied in accordance with variations in a specific Federal or State award, etc.



## INCIDENCE OF AWARDS: ALL EMPLOYEES BY INDUSTRY PERCENTAGE OF EMPLOYEES COVERED, MAY 1985

## INCIDENCE OF AWARDS: ALL EMPLOYEES BY INDUSTRY, MAY 1985 (per cent)

			Males			F	emales	
	dete	erminal	awards, tions and reements	Not covered by awards.	de	termina	y awards, tions and preements	Not covered by awards.
Industry	Federal	State	Total(a)	,	Federal	State	Total(a)	etc.
Mining	53.1	26.2	81.9	18.1	*29.7	*27.4	*60.9	*39.1
Manufacturing	48.9	32.5	84.0	16.0	39.7	46.7	87.9	12.1
Food, beverages and tobacco	25.5	56.3	85.7	14.3	20.4	69.1	91.4	*8.6
Textiles; Clothing and footwear	56.7	*23.0	80.7	*19.3	63.2	30.7	94.2	*5.8
Paper, paper products, printing								
and publishing	45.4	28.8	84.9	15.1	*33.5	44.0	80.6	*19.4
Chemicals, petroleum and coal	36.2	32.5	70.7	29.3	*21.3	59.3	81.1	*18.9
Metal products, machinery and								
equipment	62.3	22.1	85.6	14.4	49.3	37.3	88.3	*11.7
Basic metal products	38.8	46.3	85.7	*14.3	*29.1	*48.6	+77.7	*22.3
Fabricated metal products; Other								
machinery and equipment	61.0	17.8	80.6	19.4	42.1	42.2	86.6	*13.4
Transport equipment	80.0	13.6	94.0	*6.0	75.2	*20.4	96.0	
Other manufacturing	39.7	41.1	82.6	17.4	*25.2	54.6	80.9	*19.1
Electricity, gas and water	38.6	59.9	98.5	_	*44.0	*54.3	98.3	
Construction	35.4	38.9	77.0	23.0	*10.8	42.0	56.0	44.0
Wholesale trade	28.1	33.4	66.2	33.8	11.8	62.2	77.2	22.8
Retail trade	30.4	45.8	77.9	22.1	6.3	80.5	87.5	12.5
Transport and storage	55.3	31.5	90.6	9.4	47.2	29.7	79.3	*20.7
Communication	99.8		99.9	_	99.6		99.9	_
Finance, property and business								
services	32.1	28.7	69.1	30.9	29.1	46.4	84.2	15.8
Public administration and defence	53.4	44.3	98.6	_	64.7	32.3	98.2	_
Community services	14.0	72.9		11.6	6.9	82.6	90.9	9.1
Recreation, personal and other								
services	31.6	46.6	81.1	1 <b>8.9</b>	27.3	56.5	85.2	*14.8
All industries	40.0	40.5	83.4	16.6	21.6	63.4	87.4	12.6

(a) Includes small numbers of employees covered by unregistered collective agreements.

### INCIDENCE OF AWARDS: ALL EMPLOYEES BY OCCUPATION GROUP, MAY 1985 (per cent)

			Males			I	Females	
	dete	rminat	awards, ions and reements	by	de	ermina	y awards, tions and reements	Not covered by awards.
Occupational group	Federal	State	Total(a)	awards, etc.	Federal	State		etc.
Professional, technical and related								
employees	27.7	48. <del>9</del>	78.9	21.1	8.8	81.2	92.1	7.9
Nurses	_	97.5	100.0		*4.6	93.9	99.0	*1.0
Teachers	13.0	77.7	93.1	*6.9	6.1	86.3	95.0	*5.0
Draftspersons and technicians	46.5	35.9	84.3	15.7	*23.8	61.0	86.8	*13.2
Other professionals	31.3	30.6		35.4	20.1	47.6	71.7	28.3
Administrative, executive and								
managerial employees	15.7	13.0	34.8	65.2		_	_	66.0
Clerical employees	48.6	33.4		13.0	27.9	53.4	85.4	14.6
Sales employees	17.7	57.1	78.2	21.8	4.2	83.4	88.6	11.4
Farmers, fisherpersons and related		••••					0010	
employees	*25.1	61.0	87.5	*12.5	*10.8	*76.2	*91.6	*8.4
Miners, quarry and related employees	57.1	*26.9		*13.4	_		_	_
Employees in transport and	0111	-0.7	00.0	10.1				
communications	49.9	38.3	91.7	8.3	*41.0	44.1	88.2	*11.8
Tradespersons, production-process		50.5	21.1	0.5	11.0		00.2	
employees and labourers, n.e.c.	52.9	37.7	92.5	7.5	53.8	40.0	94.8	5.2
Textile, clothing, footwear and leather		51.1	12.5	7.5	55.0	40.0	74.0	5.2
goods makers and related employee		*37 1	93.5	*6.5	64.4	32.6	97.2	*2.8
Machine toolmakers, metal machin- ists, mechanics, plumbers and	3 00.4	57.1	75.5	0.5	04.4	52.0	<i>J</i> 1.2	2.0
related metal employees	63.8	27.2	92.3	7.7	*50.9	*40.6	*91.5	*8.5
Electricians and related electrical and								
electronics employees	67.1	27.6	95.7	*4.3	*93.6	*3.0	*96.7	*3.3
Metalmaking and related employees	68.3	26.8	95.5	*4.5	90.4	*5.2	95.7	*4.3
Carpenters, cabinetmakers and re- lated employees, building etc. trades	8-							
persons and construction								
employees	41.5	44.2	87.3	12.7	*27.3	*57.8	*85.2	*14.8
Packers, wrappers, labellers, store-								
persons and freight handlers	41.1	50.9	94.3	*5.7	*25.8	67.2	94.1	*5.9
Labourers, apprentices, factory								
employees, n.e.c.	42.5	47.5		7.2	*48.1	*41.9	92.7	*7.3
Service, sport and recreation employees	20.1	71.2		*7.7	17.8	71.5	90.0	*10.0
Other	97.2	-	97.2		—	—	79.9	_
All occupations	40.0	40.5	83.4	16.6	21.6	63.4	87.4	12.6

(a) Includes small numbers of employees covered by unregistered collective agreements.

# Award rates of pay indexes

The award rates of pay indexes are based on a representative sample of award designations, designed to measure trends in rates payable under awards. The indexes are based on the occupation structure existing in May 1985. The base period chosen for the indexes is June 1985. Estimates of minimum award rates of pay for each component of the series are expressed as index numbers such that June 1985=100.0.

١

## WEEKLY AWARD RATES OF PAY INDEXES FULL-TIME ADULT EMPLOYEES: INDUSTRY, AUSTRALIA

### (Base: Weighted Average Minimum Award Rate, June 1985=100.0) (Index Numbers)

		Males			Females	
	1986	1987	1988	1986	1987	1988
Industry			Dec	ember—		
Mining	106.1	112.3	116.2	106.1	113.3	120.2
Manufacturing	106.2	111.7	118.3	106.3	111.9	120.4
Food, beverages, tobacco	106.3	110.7	117.1	106.5	111.1	118.0
Textiles; clothing, and footwear	106.2	112.1	122.0	106.2	112.7	123.0
Paper, paper products, printing and publishing	106.2	111.0	117.8	106.2	111.2	119.4
Chemicals, petroleum, and coal	106.3	110.9	117.5	106.5	110.5	118.0
Metal products, machinery and equipment	106.2	112.0	117.9	106.2	112.4	119.8
Basic metal products	106.2	111.0	116.5	106.2	111.1	117.6
Fabricated metal products;						
Other machinery and equipment	106.2	112.8	119.7	106.2	112.4	120.2
Transport equipment	106.2	111.7	117.2	106.2	112.7	119.9
Other manufacturing (a)	106.2	112.2	120.7	106.2	111.5	121.6
Electricity, gas and water	106.3	110.3	114.5	106.4	111.0	116.4
Construction	106.2	110.9	117.0	106.2	110.5	117.9
Wholesale and retail trade	106.2	110.7	117.5	106.2	110.3	118.4
Wholesale trade	106.2	111.0	118.4	106.2	110.5	119.1
Retail trade	106.2	110.4	116.7	106.2	110.2	118.1
Transport and storage	106.2	110.4	116.0	106.2	110.6	115.2
Communication	106.2	111.9	118.7	106.3	113.1	120.3
Finance, property and business services	106.2	109.7	115.3	106.2	110.2	116.9
Public administration and defence (b)	106.3	109.3	115.5	106.2	109.5	117.4
Community services	106.5	109.3	114.4	107.7	111.5	118.0
Recreation, personal and other services	106.3	110.5	117.4	106.2	110.3	117.1
Total all industries (c)	106.3	110.6	116.6	106.8	111.1	118.2

(a) Includes wood, wood products and furniture; non-metallic mineral products; and miscellaneous manufacturing. (b) Excludes employees in the defence forces; agriculture; services to agriculture; and employees in private households employing staff.

# Average weekly earnings

Statistics of average weekly earnings are produced quarterly, and are based on employment and earnings information obtained from a sample survey of employers. They relate to earnings of employees in respect of one week's earnings from a single pay period ending on or before the third Friday of the middle month of the quarter. If, for a particular survey respondent, that pay period was affected unduly by an industrial dispute, plant breakdown, fire, etc., particulars for the previous normal pay period were obtained. Weekly total earnings are gross earnings in a pay period, while weekly ordinary time earnings refers to that part of weekly total earnings attributable to award, standard or agreed hours of work.

Statistics of average weekly earnings are published in the quarterly publication Average Weekly Earnings, States and Australia (6302.0). The current series was introduced in November 1983, to complete the redevelopment of average weekly earnings series from that based principally on information from payroll tax returns. Average weekly earnings statistics were revised back to August 1981 with the introduction of the new series.

		Males			Females			Persons	
	Full-time	adults	All males	Full-ti	me adults	All females	Full-time	adults	All employees
	Average			Average			Average		
Defenses menied	weekly	0	Average		Average			0	Average
Reference period— pay period ending	ordinary time	weekly total	weekiy total	ordinary time	weekly total		ordinary time	weekly totai	-
on or before		earnings					earnings		
				×	iollars—				
1985—				_	boniai 3—				
15 February	399.60	429.00	392.70	328.40	335.90	260.10	377.50	400.10	340.10
17 May	404.50	435.50	397.20	334.40	343.10	263.40	382.80	406.90	344.10
16 August	409.80	441.60	403.10	338.70	346.80	265.00	387.90	412.50	347.80
15 November	419.60	453.60	413.90	345.30	353.70	268.40	396.90	423.10	355.60
1986									
21 February	427.20	460.10	422.70	352.80	360.60	276.40	404.20	429.50	364.10
16 May	432.60	465.90	425.50	356.40	364.90	278.20	409.20	434.90	366.50
15 August	444.00	476.20	437.20	363.60	371.90	282.90	418.90	443.70	373.70
21 November	452.10	488.60	446.30	372.70	382.00	287.60	427.20	455.20	380.60
1987									
20 February	454.40	487.70	444.50	375.70	384.10	291.00	429.60	455.10	381.30
15 May	461.30	497.40	450.90	383.00	393.10	298.90	436.20	464.00	387.30
21 August	470.30	504.50	457.00	388.90	398.20	302.30	444.20	470.50	392.50
20 November	477.50	516.30	470.00	392.00	401.90	306.50	450.10	479.70	401.80
1988									
19 February	485.70	522.40	474.90	402.20	412.20	315.30	458.80	486.90	408.80
20 May	491.40	532.40	481.70	409.20	419.50	316.40	464.80	495.80	411.90
19 August	497.80	538.80	486.20	415.00	426.40	319.60	470.90	502.40	415.70
18 November	512.70	558.90	505.20	426.80	439.60	328.70	484.90	520.20	430.10
1989—									
17 February	521.90	563.70	511.60	431.30	443.30	334.80	492.30	524.30	436.30

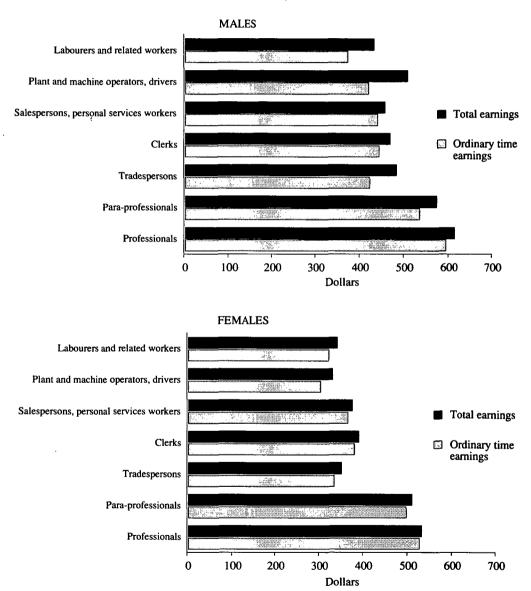
## AVERAGE WEEKLY EARNINGS OF EMPLOYEES, AUSTRALIA

In the November survey, additional information is collected relating to part-time and junior employees, managerial staff and hours of work.

# FULL-TIME NON-MANAGERIAL EMPLOYEES: AVERAGE EARNINGS AND HOURS PAID FOR, INDUSTRIES AUSTRALIA, NOVEMBER 1988

		Males			Females		<i>I</i>	Persons	
	Average			Average					
	weekly	weekly	hourly	weekly			weekly		
	earnings (\$)	hours paid for	earnings (\$)	earnings (\$)	nours paid for	earnings (\$)	earnings (\$)	hourse vaid for	
	_				para jor	(\$)	(4)	ouiu joi	(\$)
Mining	749.60	43.6	17.19	523.90	40.9	12.81	728.30	43.3	16.80
Manufacturing	512.60	42.5	12.06	378.50	39.4	9.60	479.10	41.7	11.48
Food, beverages and tobacco	496.90	43.2	11.51	396.40	40.5	9.78	471.30	42.5	11.09
Textiles; clothing and footwear	477.10	43.5	10.97	334.00	38.7	8.63	391.60	40.6	9.64
Paper, paper products, printing									
and publishing	558.00	40.8	13.68	406.20	38.9	10.44	516.50	40.3	12.83
Chemical, petroleum and coal products Metal products, machinery and	601.40	41.5	14.49	446.40	38.3	11.66	555.70	40.6	13.70
equipment	520.70	42.5	12.24	384.70	39.6	9.71	496.30	42.0	11.81
Basic metal products	578.70	42.3	13.69	446.40	38.7	11.53	568.10	42.0	13.53
Fabricated metal products; other									
machinery and equipment	502.40	43.1	11.66	375.60	39.5	9.51	472.60	42.2	11.19
Transport equipment	506.00	41.9	12.09	387.40	40.3	9.62	488.50	41.6	11.73
Other manufacturing	473.70	42.6	11.12	365.10	39.6	9.22	450.50	42.0	10.74
Electricity, gas and water Construction	546.90 567.40	39.3 42.2	13.90 13.44	433.10 411.60	37.1 38.8	11.69 10.60	536.50 555.70	39.1 42.0	13.71 13.25
Wholesale and retail trade	443.70	40.8	10.87	368.50	38.9	9.46	418.80	40.2	10.42
Wholesale trade	461.00	40.6	11.35	400.80	38.7	10.34	445.70	40.2	11.10
Retail trade	422.80	41.0	10.30	349.00	39.0	8.94	392.90	40.2	9.77
Transport and storage	546.50	42.4	12.89	429.30	39.8	10.78	528.10	42.0	12.58
Communication	508.70	38.4	13.24	445.80	38.4	11.62	494.90	38.4	12.88
Finance, property and business services	536.50	39.4	13.60	429.30	38.0	11.28	481.20	38.7	12.43
Public administration and defence	492.30	38.3	12.85	452.40	37.2	12.15	478.60	37.9	12.62
Community services	546.90	38.4	14.25	473.90	37.2	12.73	503.80	37.7	13.36
Recreation, personal and other services	443.70	40.5	10.95	368.70	39.1	9.42	411.60	39.9	10.31
Total all industries	522.30	40.8	12.80	429.20	38.2	11.25	489.90	39.9	12.28
	J	UNIOR I	EMPLOY	EES					
Mining	430.00	40.1	10.71	299.90	38.1	7.88	400.40	39.7	10.09
Manufacturing	249.10	40.3	6.18	240.00	38.8	6.18	246.90	40.0	6.18
Food, beverages and tobacco	247.70	40.6	6.10	224.40	38.6	5.82	240.80	40.0	6.02
Textiles; clothing and footwear	263.30	40.8	6.45	245.30	38.3	6.41	252.80	39.3	6.43
Paper, paper products, printing and publishing	274.00	39.6	6.91	245.70	38.9	6.32	261.70	39.3	6.66
Chemical, petroleum and coal products		37.6	8.12	261.90	37.5	6.98	291.40	37.6	7.75
Metal products, machinery and									
equipment	256.50	39.7	6.46	239.40	38.8	6.17	254.00	39.6	6.42
Basic metal products	292.00	39.5	7.38	270.70	38.1	7.10	290.20	39.4	7.36
Fabricated metal products; other									<i></i>
machinery and equipment	248.50	39.8	6.24	232.90	38.7	6.02	245.70	39.6	6.20
Transport equipment	257.70	39.4	6.54	259.90	39.7	6.54	257.90	39.5	6.54
Other manufacturing	226.00 308.00	41.4 37.7	5.46 8.16	235.70 288.10	39.7 37.0	5.94 7.78	227.50 303.30	41.1 37.6	5.53 8.07
Electricity, gas and water Construction	286.40	40.1	7.14	225.10	37.0	5.94	281.10	39.9	7.04
Wholesale and retail trade	223.70	39.9	5.61	222.40	38.8	5.74	223.20	39.4	5.66
Wholesale trade	240.00	39.0	6.15	251.70	39.4	6.38	244.50	39.2	6.24
Retail trade	220.30	40.1	5.50	217.70	38.7	5.63	219.20	39.5	5.55
Transport and storage	265.50	39.0	6.80	248.10	38.3	6.48	259.10	38.7	6.69
Communication	273.10	38.1	7.17	259.30	37.7	6.88	268.60	37.9	7.08
Finance, property and business services	260.90	38.9	6.70	249.90	38.3	6.53	253.20	38.5	6.58
Public administration and defence	276.50	37.5	7.37	275.00	37.0	7.43	275.60	37.2	7.41
Community services Recreation, personal and other services	268.40	39.0	6.88 5.65	259.40	37.8	6.86 4.56	261.10	38.0 39.9	6.87 4 80
· •	230.30	40.7	5.65	180.80	39.7	4.56	191.40		4.80
Total all industries	251.40	39.8	6.32	236.40	38.5	6.14	244.50	39.2	6.24

### AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS OF FULL-TIME ADULT NON-MANAGERIAL EMPLOYEES IN MAJOR ASCO OCCUPATIONAL GROUPS, MAY 1988



## Distribution and composition of earnings

Statistics on the distribution of employees according to weekly earnings and hours, and the composition of weekly earnings and hours for various categories of employees and principal occupations are produced from a survey of employers currently conducted in May each year.

Employers selected are requested to supply relevant details, for a sample of their employees randomly selected by the employers in accordance with instructions supplied by the ABS. Employers with fewer than eleven employees are required to complete a questionnaire for every employee.

The information presented in this sub-section relates solely to the earnings data collected in the May 1988 survey. The table below sets out the composition of average weekly earnings of employees by State and Territory.

# COMPOSITION OF AVERAGE WEEKLY TOTAL EARNINGS: ALL EMPLOYEES, STATES AND TERRITORIES, MAY 1988

(\$)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust
			MALES	5					
Overtime	39.70	36.10	33.00	25.60	49.00	34.10	46.20	29.40	37.20
Ordinary time—									
Award or agreed base rate									
of pay	436.60	429.00	407.20	408.40	451.10	415.10	458.00	535.60	431.20
Payment by measured									
result (a)	7.20	2.70	6.20	*4.70	5.60	3.20	*3.30	*5.00	5.30
Over-award and other pay	17.30	9.50	7.30	5.80	5.10	4.10	7.50	*0.80	7.40
Total	490.80	477.30	453.70	444.50	510.90	456.40	514.90	570.90	481.00
		1	FEMALE	ES					
Overtime	8.20	7.80	5.40	5.50	6.60	4.90	7.40	7.10	7.20
Ordinary time—									
Award or agreed base rate									
of pay	315.60	306.00	288.10	284.80	292.40	284.40	340.50	363.70	305.20
Payment by measured									
result (a)	0.70	1.00	*0.70	*0.70	*0.60	*0.20	0.40	*0.10	0.80
Over-award and other pay	3.40	3.90	1.60	1.10	1.30	0.70	*1.20	*1.20	2.80
Total	328.00	318.80	295.90	292.20	301.00	290.20	349.50	372.00	316.00
		1	PERSON	íS					
Overtime	26.60	23.80	21.50	17.10	31.00	21.40	28.80	19.30	24.50
Ordinary time-									
Award or agreed base rate									
of pay	386.20	375.50	357.70	356.20	383.40	358.00	405.40	457.20	377.70
Payment by measured									
result (a)	4.50	2.00	3.90	*3.00	3.50	1.90	*2.00	*2.80	3.40
Over-award and other pay	5.70	7.10	4.90	3.80	3.50	2.60	4.70	*1.00	5.40
Total	422.90	408.30	388.10	380.10	421.40	383.80	440.90	480.20	410.90

(a) Earnings which vary according to measured performance (e.g. piecework, production and task bonuses or commission).

Average weekly ordinary time earnings can vary across occupations, and this is shown in the accompanying charts. Occupation is classified to the Australian Standard Classification of Occupations (ASCO). Details of ASCO can be found in ASCO, First Edition Statistical Classification (1222.0) which was released in September 1986. An Information Paper: ASCO—Australian Standard Classification of Occupations: Introduction to ASCO Publications—First Edition (1221.0) was also released at that time.

In 1988, males in the 'Professionals' group had the highest average weekly earnings while those in 'Labourers and related workers' had the lowest. For females, the occupation group with the highest average weekly earnings was 'Professionals' and the lowest was 'Plant and machine operators, and drivers'.

# **Non-wage Benefits**

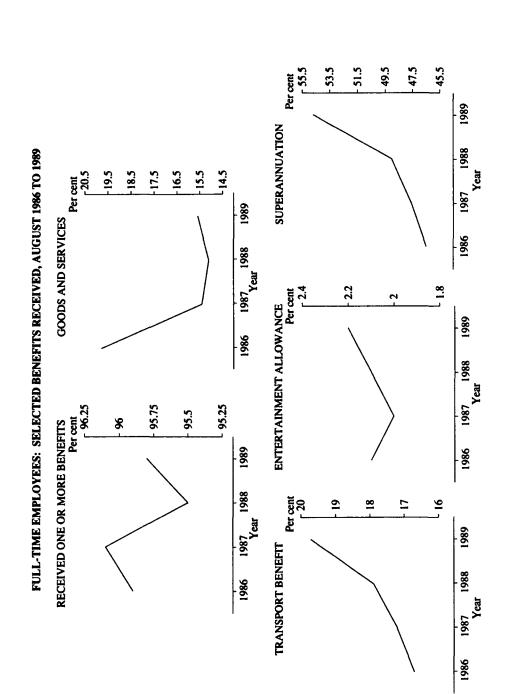
The previous section concentrated on monetary remuneration for employment. In this section, attention is given to a range of benefits other than wages, salaries and supplements that may arise from employment. Benefits covered are employer-provided concessions or allowances such as holiday costs, low interest finance, goods and services, housing, electricity, telephone, transport, medical, union dues, club fees, entertainment, shares, study leave, superannuation or children's education expenses.

Other than leave provisions, which were available to more than two-thirds of employees, superannuation was the most regularly received benefit. The incidence of this benefit was considerably proportionally higher for males than for females in every occupation group.

The survey also showed that employees at the highest levels of earnings were more likely to receive non-wage benefits. The exceptions were goods and services and annual and sick leave. Children's education expenses were rarely provided. There was also an increased likelihood of receiving benefits as employees' hours of work increased.

			Weekly	earnings	in main j	iob (dolla	rs)		
	Under 120	120 and under 200	200 and under 280	280 and under 360	360 and under 440	440 and under 520		600 and over	Total
Total employees ('000)	560.0	508.3	672.0	1,086.9	1,092.4	835.2	596.3	1,146.4	6,497.4
		-	-Percent	age of en	nployees r	eceiving	benefit—		
Type of benefit-									
Holiday expenses	*0.5	*0.6	2.1	- 2.3	3.6	4.7	5.5	6.5	3.6
Low-interest finance	*0.1	0.9	1.8	1.8	2.5	3.1	3.5	4.9	2.6
Goods and services	21.4	19.2	18.4	18.1	16.1	13.9	13.1	12.8	16.2
Housing	1.9	2.5	2.4	2.3	2.0	3.5	3.5	6.4	3.2
Electricity	1.7	2.0	1.8	1.2	1.5	1.8	1.6	3.2	1.9
Telephone	3.7	3.6	4.7	3.8	5.6	9.0	11.8	19.7	8.4
Transport	5.8	6.7	8.1	8.9	13.2	20.6	24.6	35.6	16.7
Medical	1.1	1.5	2.4	2.4	2.5	3.5	4.5	7.2	3.4
Union dues	0.7	1.0	1.3	1.8	1.7	2.8	3.1	7.0	2.7
Club fees	*0.5	*0.3	0.6	0.5	0.8	1.2	1.7	4.6	1.5
Entertainment allowance	*0.1	*0.3	0.6	0.4	0.7	1.7	2.3	6.1	1.8
Shares	*0.5	0.7	0.9	1.3	1.9	2.9	3.5	5.5	2.4
Study leave	1.6	1.6	1.4	2.0	2.3	2.3	3.3	3.8	2.4
Superannuation	4.7	18.6	29.2	42.8	52.3	59.1	65.2	70.4	46.8
Child care/education									
expenses	*0.4	*0.3	*0.2	*0.1	*0.2	*0.3	*0.3	0.7	0.3
Sick leave	10.4	50.5	70.0	86.1	90.3	91.9	94.0	91.8	78.3
Annual leave	10.3	50.7	71.1	86.9	90.9	92.3	93.9	92.2	78.8
Long-service leave	8.2	33.8	49.8	66.4	75.0	78.9	83.6	81.8	64.4

## ALL EMPLOYEES: TYPE OF BENEFIT RECEIVED AND WEEKLY EARNINGS IN MAIN JOB AUGUST 1989



			Hours wo	orked in m	ain job		
	Under 20	20-29	30-34	35-39	40	41 and over	Total
Total employees ('000)	1,153.1	520.6	504.8	1,277.3	1,301.2	1,740.4	6,497.4
		P	ercentage	of employ	ees receiving	g benefit	
Type of benefit-							
Holiday expenses	2.4	2.4	3.8	3.2	3.8	4.7	3.6
Low-interest finance	1.2	2.9	3.0	2.8	2.7	3.0	2.6
Goods and services	18.5	17.4	15.0	14.0	13.7	18.2	16.2
Housing	1.6	1.2	2.1	1.8	3.6	6.1	3.2
Electricity	1.1	0.7	1.1	0.8	1.9	3.8	1.9
Telephone	4.5	4.2	7.4	4.9	7.1	15.9	8.4
Transport	8.4	8.2	12.6	11.6	15.8	30.5	16.7
Medical	1.8	2.8	3.8	3.1	3.5	4.8	3.4
Union dues	1.0	1.4	2.2	1.8	1.8	5.8	2.7
Club fees	0.6	*0.6	0.8	0.7	1.1	3.3	1.5
Entertainment allowance	0.4	*0.4	1.1	0.8	1.8	4.0	1.8
Shares	1.1	1.0	1.7	1.9	2.4	4.2	2.4
Study leave	1.8	1.8	3.0	2.9	2.2	2.5	2.4
Superannuation	23.7	34.3	51.4	55.6	49.0	56.5	46.8
Child care/education expenses	*0.3	*0.0	*0.1	*0.2	*0.2	0.6	0.3
Sick leave	38.2	0.0	81.3	92.6	91.5	89.1	78.3
Annual leave	38.2	60.6	81.1	93.1	92.0	90.0	78.8
Long-service leave	32.6	49.5	71.0	78.9	73.3	70.9	64.4

## ALL EMPLOYEES: TYPE OF BENEFIT RECEIVED AND HOURS WORKED IN MAIN JOB AUGUST 1989

# Labour Costs

Major labour costs statistics are produced from an annual survey of employers. This survey was conducted in respect of both private and public sector employers for the second time in 1988 and collected costs incurred by employers for gross wages and salaries; severance, termination and redundancy payments; superannuation contributions; workers' compensation; payroll tax; and fringe benefits tax for the year ended 30 June 1988.

TOTA	TOTAL LABOUR	JR COSTS, F	RIVATE AN	ND PUBLIC	SECTORS:	COSTS, PRIVATE AND PUBLIC SECTORS: TYPE OF LABOUR COST AND INDUSTRY, 1987-88	BOUR COS	T AND IND	USTRY, 1987	-88	
Type of cost	Minine	Manufac- turine	Electricity, gas and water	Construc- tion	Wholesale ruc- and tion retail trade	Transport, storage and commun- ication	Finance, property and business services	Public administra- tion and defence	Community services	Recreation, personal and other services	Total
	þ	5		TOTA	TOTAL COSTS (\$ million)	million)					
Earnings	3.045	24.353	3.494	6.435	19.237	10.730	17.918	7.323	27.847	6.479	126,861
Gross wages and salaries	2,832	23,673	3,329	6,308	18,866	10,416	17,447	7,143	27,395	6,382	123,791
Severance, termination											
and redundancy payments	213	680	165	127	371	314	471	180	453	67	3,071
Other labour costs	454	3,105	580	897	1,835	1,624	2,397	960	2,818	512	15,182
Payroll tax	153	1,157	193	201	656	338	826	8	574	206	4,401
Superannuation	135	896	274	346	573	927	1.077	639	1,690	*136	6,694
Workers' compensation	118	923	102	308	431	321	171	202	514	144	3,240
Fringe benefits tax	48	129	11	*42	174	38	318	23	41	25	848
Total labour costs	3,499	27,458	4,074	7,332	21,073	12,354	20,315	8,283	30,666	6,990	142,043
			RATIO OF C	THER LAB	OUR COSTS	RATIO OF OTHER LABOUR COSTS TO EARNINGS (per cent)	3S (per cent)				
Payroll tax	5.0	4.8	5.5	3.1	3.4	3.2	4.6	1.3	2.1	3.2	3.5
Superannuation	4.4	3.7	7.9	5.4	3.0	8.6	6.0	8.7	6.1	*2.1	5.3
Workers' compensation	3.9	3.8	2.9	4.8	2.2	3.0	1.0	2.8	1.9	2.2	2.6
Fringe benefits tax	1.6	0.5	0.3	0.7	0.9	0.4	1.8	0.3	0.2	0.4	0.7
Other labour costs	14.9	12.8	16.6	13.9	9.5	15.1	13.4	13.1	10.1	7.9	12.0

· LABOUR

TOTAL	TOTAL LABOUR	COSTS, PI	RIVATE AN	D PUBLIC	SECTORS: 1	COSTS, PRIVATE AND PUBLIC SECTORS: TYPE OF LABOUR COST AND INDUSTRY, 1987-88	BOUR COS	T AND INDI	<b>USTRY, 1987</b>	<b>8</b>	
Type of cost	Mining	Manufac- turing	Electricity, gas and water	Construc- tion	Wholesale and retail trade	Transport, storage and commun- ication	Finance, property and business services	Public administra- tion and defence	Community services	Recreation, personal and other services	Total
				AVERAGE	AVERAGE COSTS PER EMPLOYEE	EMPLOYEE					
Earnings Gross wages and salaries	37,768 35,124	23,406 22,752	28,936 21,573	23,618 23,152	16,776 16,452	-dollars	24,581 23,935	23,393 22,819	22,059 21,701	12,032 11,853	21.417 20,899
severance, termination and redundancy payments Other labour costs Payroli tax	2,644 5,633 1,899	654 2,984 1,112	1,364 4,804 1,599	466 3,291 738	324 1,601 572	749 3,871 805	646 3,289 1,133	3,067 3,067 306	358 2,233 454	179 950 383	518 2,563 743
Superannuation Workers' compensation Fringe benefits tax	1,671 1,468 595	861 887 124	2,272 846 87	1,269 1,129 154	500 376 152	2,210 766 90	1,478 243 436	2,043 644 74	1,339 407 32	*253 268 47	1,130 547 143
Total labour costs	43,401	26,389	33,741	26,909	18,376	29,449	27,871	26,460	24,292	12,983	23,980
Superannuation— Cost per employee covered	2,165	1,559	2,665	2,573	2,144	3,310	3,190	2,659	3,164	1,916	2,570
Employees covered	71.2	55.3	85.2	49.3	23.2	-per cent	46.3	76.8	42.3	13.2	44.0
		ö	COSTS AS A PE	A PERCENTAGE OF	E OF TOTAL	TOTAL LABOUR COSTS (per cent)	STS (per cei	at)			
Earnings Cross wages and salaries	87.0 80.9	88.7 86.2	85.8 81.7	87.8 86.0	91.3 89.5	86.9 84.3	88.2 85.9	88.4 86.2	90.8 89.3	92.7 91.3	89.3 87.1
Severance, termutation and redundancy payments Other labour costs Payroll tax Superannuation	6.1 13.0 3.9	257 257 257 257 257 257 257 257 257 257	40 142 142 142	17 272 274	1.8 8.7 3.1	25 13.1 15	2.3 11.8 5.3	22 11.6 11.6	10 20 20 20 20 20 20	1.4 7.5 3.0	2.2 10.7 3.1
Workers' compensation Fringe benefits tax	3.4	3.4	03	4.2	2.1	2.6	0.9	2.4	0.1	2.1 0.4	2.3
Total labour costs	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

180

# YEAR BOOK AUSTRALIA

# Hours of Work and Work Patterns

It is widely recognised that statistics of hours of work and patterns of work are essential for the study of economic activity, productivity, working conditions, living standards and the quality of life of working people. In this section, a range of data has been brought together on work patterns and hours of work.

EMPLOYED PERSONS: AGGREGATE AND AVERAGE WEEKLY HOURS WORKED (a)

			Females		
			Not		
	Males	Married	married	Total	Persons
AUGUST 19	37		-		
Aggregate weekly hours worked (million)	170.4	48.1	33.9	82.0	252.4
By full-time workers	165.5	35.0	29.8	64.8	230.3
By part-time workers	4.9	13.1	4.1	17.2	22.1
Average weekly hours worked	39.8	28.0	31.0	29.1	35.6
By full-time workers	41.8	38.4	37.2	37.9	40.6
By part-time workers	15.3	16.2	14.0	15.6	15.5
By wage and salary earners	38.3	27.9	31.0	29.2	34.6
By other than wage and salary earners	46.6	28.2	30.5	28.4	40.8
Average weekly hours worked by persons who worked one					
hour or more in the reference week	41.9	29.5	32.5	30.7	37.4
By full-time workers	43.9	40.6	39.2	40.0	42.7
By part-time workers	16.2	17.0	14.6	16.4	16.3
AUGUST 19	38				
Aggregate weekly hours worked (million)	177.7	51.3	36.8	87.1	264.8
By full-time workers	173.2	37.2	31.5	68.7	241.9
By part-time workers	4.6	14.1	4.2	18.3	22.9
Average weekly hours worked	40.6	28.2	31.1	29.3	36.0
By full-time workers	42.5	38.8	37.6	38.2	41.2
By part-time workers	15.0	16.4	13.6	15.6	15.5
By wage and salary earners	39.1	28.2	31.2	29.5	35.1
By other than wage and salary earners	47.2	27.8	29.1	28.0	40.9
Average weekly hours worked by persons who worked one					
hour or more in the reference week	42.8	29.8	32.7	30.9	38.0
By full-time workers	44.8	41.1	39.6	40.4	43.5
By part-time workers	16.0	17.3	14.2	16.4	16.3
AUGUST 19	39				
Aggregate weekly hours worked (million)	186.2	54.5	38.5	93.0	279.2
By full-time workers	181.1	39.8	33.5	73.2	254.3
By part-time workers	5.1	14.7	5.0	19.7	24.8
Average weekly hours worked	40.7	28.3	31.3	29.5	36.1
By full-time workers	42.9	38.9	38.5	38.7	41.6
By part-time workers	14.4	16.3	14.0	15.6	15.3
By wage and salary earners	39.5	28.3	31.2	29.5	35.3
By other than wage and salary earners	46.3	28.3	33.1	29.0	40.7
Average weekly hours worked by persons who worked one					
hour or more in the reference week	42.7	29.8	32.7	30.9	37.9
By full-time workers	45.0	41.0	40.1	40.6	43.6
By part-time workers	15.2	17.1	14.6	16.4	16.1

(a) The figures refer to actual hours worked not hours paid for.

The previous table sets out aggregate and average hours worked by employed persons who are either working full-time or part-time. The following table provides information on average hours worked by employed persons by the industry of their employment.

		Fema	ales	
Industry	Males	Married	Total	Persons
Agriculture, forestry, fishing and hunting	46.0	26.5	26.8	40.5
Agriculture and services to agriculture	46.5	26.7	26.9	40.8
Forestry and logging, fishing and hunting	39.7	22.2	22.2	37.1
Mining	42.2	32.9	35.1	41.5
Manufacturing	40.9	32.5	33.4	38.8
Food, beverages and tobacco	40.8	31.4	31.1	37.8
Metal products	41.5	30.8	32.4	40.0
Other manufacturing	40.7	33.0	34.0	38.8
Electricity, gas and water	36.4	31.6	31.6	36.0
Construction	40.9	17.7	20.6	38.3
Wholesale and retail trade	41.0	28.8	27.7	34.9
Wholesale trade	42.4	28.3	31.4	39.0
Retail trade	40.2	28.9	26.8	33.2
Transport and storage	40.9	28.8	31.9	39.1
Communication	36.5	31.1	31.6	35.2
Finance, property and business services	42.0	28.8	31.8	37.1
Public administration and defence	36.2	28.2	30.7	34.1
Community services	39.4	27.3	29.2	32.8
Recreation, personal and other services	39.0	28.1	28.3	32.9
All industries	40.7	28.3	29.5	36.1

### EMPLOYED PERSONS: AVERAGE WEEKLY HOURS WORKED (a) BY INDUSTRY AUGUST 1989

(a) The estimates refer to actual hours worked, not hours paid for.

Statistics on overtime are produced from a survey conducted each quarter. Estimates prior to November 1983 are not strictly comparable to later estimates. Background information about the job vacancies series is provided in *Information Paper: New Statistical Series: Employment, Average Weekly Earnings, Job Vacancies and Overtime* (6256.0).

Industry	May 1984	May 1985	May 1986	May 1987	May 1988	May 1989
AVERAGE WEEKLY OVERTI	ME HOURS	5 PER EMP	LOYEE W	ORKING C	VERTIME	_
Mining	8.7	10.5	9.2	9.4	11.1	11.7
Manufacturing	7.8	7.7	7.8	7.9	8.3	8.7
Food, beverages and tobacco	6.0	6.3	7.3	6.8	7.3	7.4
Textiles; Clothing and footwear	8.6	8.9	7.9	8.4	7.1	9.8
Paper, paper products,						
printing and publishing	6.2	6.0	6.6	7.4	7.5	7.6
Chemical, petroleum and coal						
products	10.3	9.0	8.7	8.6	7.8	8.4
Basic metal products	10.7	9.2	9.3	9.9	10.2	10.7
Fabricated metal products; other						
machinery, and equipment	7.7	7.6	7.5	7.8	9.0	8.7
Transport equipment	7.8	9.3	8.4	8.9	8.9	8.8
Other manufacturing	7.8	7.1	7.9	7.6	8.2	9.3
Electricity, gas and water	7.2	7.3	7.0	7.2	7.6	7.8
Construction	6.9	7.3	7.0	8.0	8.4	8.8
Wholesale trade	6.0	6.4	6.6	6.8	6.9	6.5
Retail trade	3.7	3.5	3.9	3.7	4.4	4.5
Transport and storage; Communication	7.3	7.6	7.9	7.3	9.3	8.5
Public administration and defence (a)	5.6	5.0	5.3	5.0	5.7	5.9
Community services	5.6	6.3	6.0	5.9	5.8	6.3
Other (a)	6.2	6.1	5.2	5.4	5.7	5.4
All industries	6.7	6.8	6.8	6.8	7.3	7.4

# **OVERTIME BY INDUSTRY**

For footnotes see over.

OVERI	IME BY IN	DUSTRI-	-continuea			
Industry	May 1984	May 1985	May 1986	<u>Мау</u> 1987	May 1988	May 1989
PERCENTAGE OF EMPL	OYEES IN 7	THE SURV	EY WORK	ING OVER	TIME	
Mining	46.7	42.6	46.2	44.1	44.0	47.3
Manufacturing	28.0	31.5	31.5	33.6	32.6	35.5
Food, beverages and tobacco	34.2	37.3	38.4	40.4	39.2	36.7
Textiles; Clothing and footwear	24.6	24.7	20.3	24.8	26.6	29.1
Paper, paper products,						
printing and publishing	17.9	19.7	19.7	24.7	24.9	25.1
Chemical, petroleum and coal						
products	22.2	22.0	24.0	29.3	29.3	36.4
Basic metal products	38.0	37.7	41.8	45.1	43.0	49.4
Fabricated metal products; other						
machinery, and equipment	26.8	31.1	33.9	35.5	30.3	40.2
Transport equipment	30.7	37.6	32.5	32.7	35.7	39.1
Other manufacturing	27.8	33.7	33.3	35.5	33.5	33.9
Electricity, gas and water	23.0	24.6	23.8	21.0	23.3	25.0
Construction	17.4	21.1	25.4	21.5	26.4	28.1
Wholesale trade	15.5	16.7	15.3	15.2	19.3	19.2
Retail trade	15.5	19.3	17.8	16.8	17.9	16.3
Transport and storage;						
Communication	27.0	31.9	31.5	28.6	31.2	33.0
Public administration and defence (a)	8.3	14.8	14.0	13.7	14.7	13.5
Community services	8.3	5.0	6.2	7.0	6.6	6.5
Other (b)	7.4	9.9	9.5	10.0	12.1	12.6
All industries	16.5	18.2	18.1	18.1	19.0	19.6

**OVERTIME BY INDUSTRY**—continued

(a) Excludes permanent defence forces. (b) Includes finance, property and business services and recreation, personal and other services.

# **Industrial Disputes**

This section presents statistics of industrial disputes involving the loss of ten working days or more at the establishments where stoppages occurred. Industrial disputes data are obtained from employers (private and government), trade unions, and from reports of government authorities.

INDUSTRIAL DISPUTES	N PROGRESS DURING EACH YEA	R 1984 TO 1988: AUSTRALIA

	Number of dispu	ites	Employees invol	ved ('000)	
Year	Commenced in year	Total (a)	Newly involved (b)	Total (a)	Working days lost ('000)
1984	1.958	1,965	551.1	560.3	1,307.4
1985	1,876	1,895	r552.7	570.5	1,256.2
1986	1,747	r1,754	673.9	691.7	1,390.7
1987	1,512	1,517	593.4	608.8	1,311.9
1988	1,502	1,508	893.9	894.4	1,641.4

(a) Refers to all disputes in progress during the year. (b) Comprises workers involved in disputes which commenced during the year and additional workers involved in disputes which continued from the previous year.

An industrial dispute is a withdrawal from work by a group of employees or a refusal by an employer (or a number of employers) to permit some or all employees to work, each withdrawal or refusal being made to enforce a demand, resist a demand, or to express a grievance. Employees involved include those directly and indirectly involved in disputes, with the indirectly involved being only those who ceased work at establishments where stoppages have occurred but who are not party to the disputes. Working days lost refer to working days lost by workers directly or indirectly involved in disputes. The annual figures contained in these tables relate to disputes in progress.

#### INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1984 TO 1988: WORKING DAYS LOST BY INDUSTRY ('000)

			Manu	facturing				
	Mi	ining	Metal products, machinery and		Construc-	Transport and storage; Communi-	Other industries	All
Year	Coal	Other	equipment	Other		cation	(a)	industries
1984	131.1	193.2	144.8	249.3	116.3	150.6	322.1	1,307.4
1985	233.8	106.4	107.3	189.4	175.3	180.4	263.7	1,256.2
1986	362.0	179.4	187.4	205.3	117.7	57.6	281.4	1,390.7
1987	291.8	55.7	199.6	195.5	194.5	92.5	282.3	1,311.9
1988	471.3	97.4	309.5	117.4	207.9	75.0	362.9	1,641.4

(a) Includes: agriculture, etc.; electricity, etc.; wholesale and retail trade; finance, etc.; public administration, etc.; community services; recreation and personal services.

# INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1984 TO 1988: WORKING DAYS LOST BY STATE

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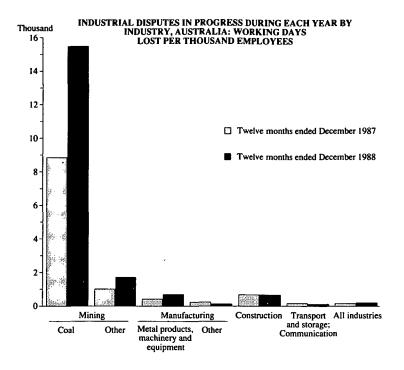
Year	NSW	Vic.	Qld	SA	WA	Tas.	Aust. (a)
1984	660.6	187.5	236.5	25.5	119.2	50.5	1,307.4
1985	398.7	355.9	336.2	22.5	92.9	20.7	1,256.2
1986	598.8	381.8	173.4	r46.3	143.1	29.2	1,390.7
1987	744.8	281.4	73.7	44.6	115.3	28.0	1,311.9
1988	730.1	362.6	299.5	47.0	160.6	18.6	1,641.4

(a) Includes the Northern Territory and the Australian Capital Territory.

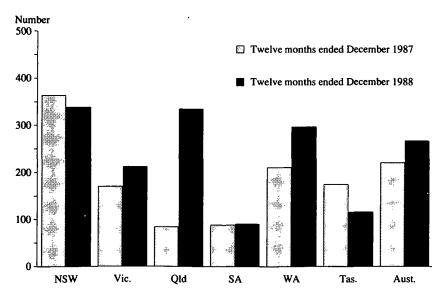
The following table shows the number of working days lost per thousand employees in the years 1984 to 1988. As from 1984, the basis for calculating working days lost per thousand employees changed to include estimates of employees from the Survey of Employment and Earnings. These estimates are combined with estimates of the number of employees in agriculture and in private households obtained from the Labour Force Survey. Prior to 1984, the figures were calculated using estimates from the Labour Force Survey.

## INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1984 TO 1988: WORKING DAYS LOST PER THOUSAND EMPLOYEES BY INDUSTRY

	Ĺ	Manufac	turing					
	Mir	uing	Metal products, machinery and	C	onstruc-	Transport and storage; Communi-	Other	All
Year	Coal	Other	equipment	Other	tion		industries	
1984	3,913	3,745	343	416	503	372	91	248
1985	6,892	1,928	256	312	666	430	71	228
1986	10,741	3,328	445	328	458	135	72	242
1987	8,920	1,072	479	305	743	217	70	223
1988	15,548	1,777	750	183	725	177	85	269







	DAYS LOS	SI PER IN	UUSAND EN	IPLOYEES	BYSIAIE	<u> </u>	
Year	NSW	Vic.	Qld	SA	WA	Tas.	Aust. (a)
1984	357	132	302	56	256	350	248
1985	209	236	411	48	187	138	228
1986	304	240	r207	95	272	190	242
1987	366	172	87	91	r213	177	223
1988	341	214	337	93	299	118	269

#### INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1984 TO 1988: WORKING DAYS LOST PER THOUSAND EMPLOYEES BY STATE

(a) Includes the Northern Territory and the Australian Capital Territory.

### INDUSTRIAL DISPUTES ENDING DURING EACH YEAR 1986 TO 1988: DURATION, CAUSE AND METHOD OF SETTLEMENT, WORKING DAYS LOST ('000)

	(		
	1986	1987	1988
DU	IRATION		
Up to 1 day	441.00	350.1	732.9
Over 1 to 2 days	- 65.7	180.9	113.7
Over 2 to less than 5 days	98.9	160.1	144.2
5 to less than 10 days	219.4	261.5	574.5
10 to less than 20 days	398.4	116.3	132.7
20 days and over	142.8	140.7	42.7
Total	1,366.2	1,209.5	1,713.8
	CAUSE		
Wages	546.3	• 519.7	507.9
Hours of work	13.2	20.3	31.5
Managerial policy	486.0	330.9	897.7
Physical working conditions	93.7	88.7	158.1
Trade unionism	45.7	36.8	34.0
Other (a)	181.3	213.1	84.6
Total	1,366.2	1,209.5	1,713.8
METHOD OF	SETTLEMENT (b)		
Negotiation	165.1	211.4	176.1
State legislation	110.2	171.9	102.7
Federal and joint Federal State legislation	576.8	297.2	788.2
Resumption without negotiation	467.8	509.2	598.4
Other methods(c)	46.3	19.8	48.3
Total	1,366.2	1,209.5	1,713.8

(a) Includes 'Leave, pensions, compensation provisions etc'. (b) Method directly responsible for ending the stoppage of work. (c) Includes 'Mediation', 'Filling the places of workers on strike or locked out' and 'Closing down the establishment permanently'.

# **Trade Unions**

For the purpose of the following statistics a trade union is defined as an organisation, consisting predominantly of employees, whose principal activities include the negotiation of rates of pay and conditions of employment for its members. Returns showing membership by State and territory each year are obtained for all trade unions and employee organisations.

In the table following the approximate percentages of wage and salary earners in employment (i.e. employees) who were members of trade unions are shown. From 30 June 1985, the proportions of employees have been calculated from estimates of employees from the Survey of Employment and Earnings, as published quarterly in *Employed Wage and Salary Earners, Austrlaia* (6248.0).

These estimates have been adjusted by adding estimates of employees in agriculture, forestry, fishing and hunting and in private households employing staff, from the Labour Force Survey. For statistics prior to 30 June 1985, all estimates of employees were taken from the Labour Force, Australia (6203.0). The percentages shown should be regarded as giving only a broad indication of the extent of union membership among employees, because they are based on estimates of employed wage and salary earners. The degree of unemployment of reported union members will affect the percentages for a particular year and comparison over time. Such comparisons may also be affected by duplication in the count of members due to persons holding membership in more than one union, and by union perceptions and practices in regard to membership (e.g. membership may be restricted to 'financial' members only) which can change over time.

	Number of	. Number	Number of members ('000)			on of total en (per cent)	nployees
	separate unions (a)	Males	Females	Persons	Males	Females	Persons
30 June-							
1985 (b)	323	2,121.6	1,032.6	3,154.2	65	46	57
1986	326	2,126.5	1,059.7	3,186.2	63	44	55
1987	316	2,136.0	1,104.2	3,240.1	63	44	55
1988	308	r2,166.6	r1.123.8	r3.290.5	r62	43	r54
1989	299	2,191.0	1,219.3	3,410.3	62	44	54

#### **TRADE UNIONS: NUMBER, MEMBERSHIP AND PROPORTION OF TOTAL EMPLOYEES**

(a) Without interstate duplication. (b) Unions reported financial and total membership separately for the first time as at 30 June 1985.

<b>TRADE UNIONS:</b>	CLASSIFICATION AG	CCORDING TO	NUMBER OF	MEMBERS
	30 JU!	NE 1989		

,	Separate u	nions	Members	
Size of union (number of members)	Number	Proportion of total (per cent)	Number ('000)	Proportion of total (per cent)
Under 100	38	12.7	1.7	0.1
100 and under 250	31	10.4	5.3	0.2
250 and under 500	26	8.7	8.9	0.3
500 and under 1,000	41	13.7	28.8	0.8
1,000 and under 2,000	42	14.0	59.5	1.7
2,000 and under 3,000	12	4.0	29.6	0.9
3,000 and under 5,000	25	8.4	98.8	2.9
5,000 and under 10,000	19	6.4	138.9	4.1
10,000 and under 20,000	19	6.4	261.3	7.7
20,000 and under 30,000	12	4.0	295.4	8.7
30,000 and under 40,000	. 10	3.3	350.2	10.3
40,000 and under 50,000	6	2.0	271.1	7.9
50,000 and under 80,000	7	2.3	453.1	· 13.3
80,000 and over	11	3.7	1,407.8	41.3
Total	299	100.0	3,410.3	100.0

In addition, a Supplementary Survey was conducted in August 1988 to provide information on the characteristics of trade union members such as their age, industry, and occupation.

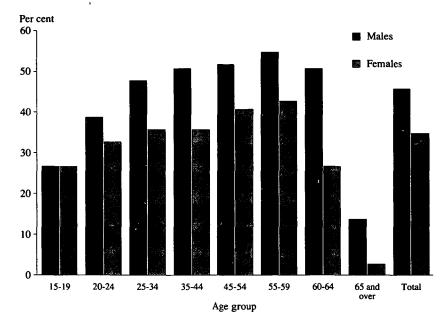
For the purposes of this Supplementary Survey, to be considered as members of a trade union persons must be employed wage and salary earners who are using their membership in conjunction with their main job. Selected results from this survey are shown in the following tables and graph.

## YEAR BOOK AUSTRALIA

(rer cent)									
		Males		F	emales			Persons	-
Age group	Married	Not- married	Total	Married	Not- married	Total	Married	Not- married	Total
15-19	37	27	27	43	26	27	42	26	27
2024	43	38	39	34	33	33	38	36	36
25-34	49	45	48	35	36	36	44	41	43
35-44	50	55	51	36	40	36	44	48	45
45-54	51	54	52	39	47	41	46	51	47
5559	55	56	55	40	52	43	51	54	51
60-64	49	59	51	21	36	27	44	48	45
65 and over	12	18	14	6	0	3	11	7	9
Total	50	40	46	36	34	35	44	37	42

#### PROPORTION OF ALL EMPLOYEES WHO WERE TRADE UNION MEMBERS, AGE AND MARITAL STATUS, AUGUST 1988 (Per cent)

ALL EMPLOYEES: PROPORTION WHO WERE MEMBERS OF A TRADE UNION BY AGE, AUGUST 1988



		Males			Females			Persons	
Industry	Public	Private	Total(a)	Public	Private	Total(a)	Public	Private	Total(a)
Agriculture, forestry,									
fishing and hunting	62	10	13	34	11	11	57	10	13
Mining	93	65	67	100	18	19	93	61	63
Manufacturing	88	50	52	88	37	38	88	47	48
Electricity, gas and water	83	74	82	62	69	62	81	73	80
Construction	79	48	52	56	6	11	77	43	47
Wholesale and retail trade	61	20	21	37	26	26	54	23	23
Transport and storage	88	52	69	71	23	35	86	44	62
Communication	84	77	84	55	52	55	76	73	76
Finance, property and									
business services	71	22	28	70	20	27	70	21	28
Public administration and									
defence	68	71	68	48	23	48	61	48	61
Community services	68	26	56	59	25	45	63	25	49
Recreation, personal and									
other services	51	25	27	55	24	26	53	25	26
Total	75	36	46	58	26	35	68	32	42

#### PROPORTION OF ALL EMPLOYEES WHO WERE TRADE UNION MEMBERS, INDUSTRY AND SECTOR, AUGUST 1988 (Per cent)

(a) Includes persons for whom sector could not be determined.

# **Employment and Training Programs**

In order to ensure that its programs were appropriate to the current needs of the labour market, in 1983 the Commonwealth Government established the Committee of Inquiry into Labour Market Programs. As a result of that Committee's recommendations, the Government has restructured and rationalised its labour force programs. The resulting mix of programs is designed to promote work experience and training. The principal aims of the labour force programs are to maintain a supply of trained persons to meet the needs of industry and to assist disadvantaged groups in the labour market. Labour force programs operating in 1989 are detailed as follows.

# Australian Traineeship System—ATS

The ATS was introduced in August 1985 to bring structured training arrangements to the non-trades occupations. It is particularly directed towards young people who do not go on to higher education, technical or trade training, primarily 16–18 year olds, with preference given to those who do not have Year 12 qualifications. Traineeships are of at least 12 months duration and consist of a structured combination of on- and off-the-job training. Training includes a minimum of 13 weeks off-the-job training, usually provided by a TAFE.

The Commonwealth is responsible for the overall development and implementation of the ATS in close consultation with State and Territory governments, State Training Authorities, TAFEs, employers, unions and young people. The Commonwealth provides:

- an on-the-job training fee of \$1,000 per trainee to employers, \$2,000 in the case of trainees assessed as disadvantaged;
- an off-the-job training fee of \$1,900 per trainee which is paid to TAFE and \$2,000 in the case of other approved off-the-job training providers;
- living away from home allowances to trainees who have to move in order to take up a traineeship.

The trainee is paid a trainee wage for the duration of the traineeship which is set with reference to relevant junior rates for the time spent on the job. The trainee wage cannot be less than \$108.35 per week and is adjusted in accordance with National Wage Case decisions. Since the inception of the system over 34,000 young people have commenced a traineeship in a wide range of industries and occupations. Of these over 13,600 trainees commenced in 1988–89.

# **Industry Training Support Program**

This program has two components:

- Industry Training Services
- Innovative Training Projects

## Industry Training Services

In addition to specific schemes directed at the training of individuals, the Government also provides aid to assist industry develop and improve its own training programs. Support is provided for a network of Industry Training Committees which are tripartite, autonomous, industry based bodies, incorporated as companies or associations with membership representing employer and employee associations and Commonwealth and State/Territory Government. Their primary role is to improve the standards of industry training in Australia thereby contributing to greater international competitiveness whilst providing a channel of advice and communication between industry and governments.

They promote and develop systematic training in their industries and advise State and Commonwealth governments on skill formation matters affecting their industries. There are 117 National and State/Territory ITCs covering 18 major industries, representing more than half of the private sector workforce.

Under another component of the Program, Training Services Australia (TSA) provides a range of public training courses and consultancy services designed to improve the utility of training in industry and the competentially of those who provide it. TSA operates training centres and offers training consultancy services in all capital cities excluding Darwin.

## **Innovative Training Projects**

The Innovative Training Projects component of the Industry Training Support Program is intended to be a flexible program designed to meet identified skill requirements at both occupational and industry levels by facilitating improvements in the level and quality of skills training. Financial assistance can be provided to industry to:

- upgrade workforce skills to meet structural and technological change;
- · establish industry training foundations and skill centres;
- pilot test new and innovative training arrangements;
- · facilitate industry restructuring through award restructuring processes;
- · develop national curricula and competency based training and assessment procedures;
- establish enterprise based skill centres;
- · assist in trainer training; and
- address national skill shortage issues.

# **Innovative Training Projects** — National Skills Shortages

The National Skills Shortages Program provides short-term training assistance to individuals and industry in occupations where skilled labour is in short supply. Particular emphasis is given to occupations identified as requiring temporary reliance on skilled migrants.

The primary objective of the National Skills Shortages Program is to minimise the effects of current and emerging skill shortages of national significance. Training programs are developed in conjunction with industry groups and training providers. The Department welcomes suggestions from industry groups as to areas of shortages of national significance.

190

The program provides:

- refresher training for persons with basic qualifications or experience but whose skills need updating;
- bridging training for overseas qualified persons seeking recognition of their qualifications in Australia; and
- skills upgrading of existing employees.

In recent years the Program has assisted training in a range of areas of identified national skill shortages including:

- nursing and other health occupations;
- the hospitality industry; and
- the computer industry.

# **Innovative Rural Education and Training Program — IRETP**

IRETP is part of the Commonwealth's 'Fair Go' strategy targetted at improving access of rural Australia to education and training. IRETP is designed to assist community groups, educational institutions and industry in the development of innovative methods for delivery of relevant education and training programs at the regional level in non-metropolitan areas of Australia.

# Trade Training System

The Trade Training Programs aim to assist in meeting the long term needs of the economy for trade skills by improving the efficiency, flexibility and equity of the system. This system has two program elements:

- Commonwealth Rebate for Apprentice Full-time Training CRAFT; and
- Special Apprentice Training SAT

## Commonwealth Rebate for Apprentice Full-time Training-CRAFT

CRAFT aims to maintain or increase apprentice recruitment and promote improvements in the quality of apprentice training through the following components:

- Technical Education Rebate, payable to employers to offset the costs associated with releasing their apprentices to undertake the technical education component of an approved basic trade course. Applies to all eligible employers with apprentices who commenced their apprenticeship prior to 1 January 1988.
- Apprentice Training Incentive, introduced on 1 January 1988 to progressively replace the Technical Education Rebate. Employers who take on and indenture apprentices after 1 January 1988 are able to apply for one-off grants in respect of the commencement, recommencement and completion of an apprenticeship. From 1 July 1989, employers receive an extra \$1,000 for taking on a young person classified by the CES as disadvantaged in the labour market.
- Off-the-Job Training, payable to employers for releasing apprentices to attend approved full-time instruction at their own or other industry training centre. Employers approved to train other employers' apprentices can also be compensated for designated training costs.
- Living-Away-From-Home-Allowance, available to apprentices in their first and second year of apprenticeship where there is a need to live away from home to obtain or maintain their apprenticeship.
- Fares Assistance, available to apprentices, in approved trades, who have to move away from home to take up an apprenticeship.

## Special Apprentice Training—SAT

SAT aims to improve the access to, and reduce wastage from, apprenticeship and other trade training opportunities for special groups, including those with disabilities, through assistance designed to complement and improve approaches to traditional apprentice training. Assistance is available under the following components:

- Special Trade Training Program, directed at testing, developing and introducing new approaches to traditional apprentice training. The major support under the program provides for special preparatory courses for women as well as the 'Tradeswomen on the Move' projects a joint Commonwealth/State strategy designed to encourage greater participation of young women in non-traditional trades.
  - A major component under this program has been the provision of assistance to the States/Territories for additional trade-based pre-employment courses. Introduced in 1983 as a counter-cyclical measure in response to a downturn in apprentice recruitment, this assistance will no longer be available in view of the record levels of intake into apprenticeships over the past three years.
- Group Training Schemes, cover apprentices and trainees under the ATS and aim to increase training opportunities with small companies which would not be able to recruit apprentices and trainees in their own right by indenturing apprentices/trainees to a central body, such as an employer organisation or a training company. The Commonwealth
- provides assistance to group training projects to offset their administrative costs.
- Disabled Apprentice Wage Subsidy, provides a subsidy to employers who indenture a person with disabilities as an apprentice. The subsidy may be provided for up to the duration of the apprenticeship and extra help may be granted to allow necessary workplace modifications and tutorial assistance.
- Special Assistance Program, provides a training allowance to unemployed out-of-trade apprentices to assist them in completing basic trade courses.

# **JOBTRAIN**

A single JOBTRAIN program was introduced for 1988–89 which combined the former Youth Training Program (YTP) for job seekers under 21 years old, and Adult Training Program (ATP) for those 21 years and over.

The JOBTRAIN program provides opportunities for the long-term unemployed or other especially disadvantaged job seekers to receive vocational training based on opportunities in the local labour market.

The program generally assists people who have been unemployed for at least six out of the past nine months or are otherwise especially disadvantaged in the labour market, e.g. people with disabilities, Aboriginals, sole parents, people born overseas with English language or cultural difficulties, women returning to the workforce after a prolonged absence, young people deemed 'at risk' and other special needs job seekers.

Priority within JOBTRAIN has been given to providing additional assistance to:

- sole supporting parents under the Jobs, Education and Training (JET) Program; and
- adults aged 21-54 who are unemployed for 12 months or more under the NEWSTART strategy.

JOBTRAIN participants' needs, their suitability for training, and the skill requirements of the local labour market, are taken into account in the development of short-term vocational courses at the local level.

Courses are usually developed and/or provided on a fee-for-service basis through TAFE or other training providers. Course participants may receive the Formal Training Allowance (FTA), equivalent to their unemployment benefit or job search allowance, plus ancillary allowances such as for books and equipment and living away from home allowances, with a training component of \$30 per week for those 21 years and over.

Assistance with child care is available for sole parents (with children under 16 years) to undertake DEET-approved formal training to improve their job prospects.

Linked to the establishment of the National Office of Overseas Skill Recognition (NOOSR), in April 1989 the number of places in JOBTRAIN for overseas qualified professionals was increased to 180 in 1989–90 and 200 in 1990–91.

# Job Search Training Program

The Job Search Training Program has two components—Job Clubs and Job Search Training Courses (JSTCs). Both program elements provide jobseekers with training in job search skills to improve their competitiveness in the labour market.

The program operates by funding training providers to deliver an agreed program of job search training on a contractual basis. Job Clubs run for 3 weeks full-time, while JSTCs provide 22 hours training in total.

During 1988–89, the first full year of the operation of the Job Search Training Program, 6,116 jobseekers took part in the 75 Job Clubs across the country and 14,118 undertook a JSTC. Job Clubs scored a 62 per cent placement success rate with 29 per cent for JSTCs.

# Job Creation and Employment Assistance Programs

# New Enterprise Incentive Scheme—NEIS

NEIS provides assistance for unemployed people to set up self employment ventures. The Scheme operates as a partnership between the Commonwealth and either State/Territory governments or private sector and non-government organisations. It provides a comprehensive support package for participants during the crucial establishment phase, increasing their opportunity to establish themselves successfully in permanent self-employment.

The Commonwealth provides 12 months income support, broadly equivalent to unemployment benefit, and training in business plan development and small business management skills. This is complemented by start-up capital and business advice provided by State/Territory governments or other organisations participating in NEIS jointly with the Commonwealth.

The target group for NEIS is unemployed people registered with the Commonwealth Employment Service, in receipt of or dependent on unemployment benefit or certain other Social Security benefits or pensions, and aged between 18 years and the aged pension age. Proposed businesses must be new, independent, reputable and assessed as commercially viable and meeting an unsatisfied demand.

# JOBSTART

JOBSTART is a general wage subsidy program which provides access to employment for job seekers who have experienced long periods of unemployment or face other disadvantages in obtaining work. Under the program, employers receive subsidy payments for a period of up to 20 weeks as an incentive for engaging and improving the employment prospects of these disadvantaged job seekers. The rate of the subsidy payment varies according to age, length of unemployment and other special disadvantages.

The primary eligibility requirement is to have been unemployed for at least six months out of the last nine months, away from full-time education, be currently registered with the Commonwealth Employment Service (CES) and actively seeking work.

The duration of unemployment criterion is waived for especially disadvantaged labour market groups such as overseas-born jobseekers who have English language difficulties or face cultural barriers in gaining access to employment, Aboriginals, sole parents and other special needs jobseekers.

For employers to qualify for a JOBSTART subsidy they must be prepared to pay at least the award or appropriate wage for the job and fulfil other award conditions and should discuss the matter with the CES before employing the jobseeker.

# Jobs, Education and Training (JET) Program for Sole Parents

JET aims to improve the financial circumstances of sole parents by facilitating their entry to the workforce through an integrated program of assistance providing individual advice and access to employment, education, training and child care opportunities.

The JET program has two objectives:

- to increase the number and proportion of sole parents in employment, and
- to reduce social security outlays for sole parents.

JET is a voluntary program which provides sole parent pensioners with a consolidated range of assistance from the Department of Employment, Education and Training (DEET), the Department of Social Security (DSS) and the Department of Community Services and Health (DCSH).

JET was introduced in late March 1989 and is being phased in nationally over two years with full implementation by November 1990.

All sole parent pensioners are eligible for JET. However, priority is given to: those who have been on a pension for over 12 months, and those whose children are over six years; those whose youngest child will reach the age of 16 within two years; and teenage sole parents.

JET Advisers in DSS offices provide sole parents with individual assessments of job barriers and prospects, advice about relevant services, and refer them to the Commonwealth Employment Service (CES) for employment, education and training assistance. Extra places are available for sole parents who need to retrain or improve their work skills through the JOBTRAIN, JOBSTART or Job Search Training Programs. For JET clients undertaking full-time education courses, extra funds are available for income support under AUSTUDY. In addition, full-time student pensioners receive an AUSTUDY education supplement of \$30 per week.

Child care places are provided to sole parents through the Children's services Program (by DCSH) during their training and education, and for 12 weeks after they commence employment.

# **Mobility Assistance Scheme**

The Mobility Assistance Scheme aims to facilitate referral or placement of jobseekers by providing financial assistance towards the costs incurred in pursuing or taking up suitable employment opportunities. The Scheme is divided into three components.

- Fares Assistance. Provides free travel on public transport for jobseekers to attend job interviews for employment of a continuing nature. This ensures that those most in need of financial assistance are not disadvantaged in their search for employment by the cost of fares.
- *Relocation Assistance*. Provides financial assistance to meet the relocation expenses of jobseekers who are unable to obtain continuing employment in their present locality and are prepared to move to a new area to take up a job that cannot be filled by suitable local jobseekers. Assistance under the relocation provisions includes fares and expenses associated with moving a home and family.
- Enhanced Mobility for Disadvantaged Job seekers. Provides for a one-off payment of up to \$100 to jobseekers in necessitous circumstances to cover incidental costs associated with starting employment. Examples of such incidental costs are union dues, uniforms and initial fares.

# **Industry Labour Adjustment Assistance**

The program contributes to the efficient and equitable functioning of the labour market by improving and adapting the skills/employment base in particular industries or regions undergoing structural change and assisting individuals affected by the change.

This program provides a range of labour market measures under the auspices of the Office of Labour Market Adjustment (OLMA). The measures cover training or other re-employment assistance, directed to particular industries undergoing structural change in recognition of the need for enhanced competitiveness, and to workers losing employment as a result of structural adjustment or specific Commonwealth Government decisions. The assistance is available in specific packages or 'mixes' according to the assessed needs of the workers in the particular industry or region. Packages to operate in 1989–90 are:

- Labour Market Adjustment Assistance (LMAA) flexible packages of assistance designed by OLMA and subject to Ministerial determination as to whether the provision of special assistance is necessary to help people affected by structural adjustment to obtain new employment. This component also incorporates assistance to retrenchees from the Passenger Motor Vehicle Industry provided under the Labour Adjustment Training arrangement (LATA).
- Heavy Engineering Adjustment and Development Program (HEADP) there will be some finalisation of existing claims from companies under the skills enhancement element, and people retrenched from the industry before 30 June 1989 may continue to receive training or re-employment assistance.
- Textiles, Clothing and Footwear Industries Labour Adjustment Package (TCF LAP) re-employment assistance is available for workers retrenched during the restructuring anticipated under the 1989–95 TCF Industry Plan. Special Assistance is also available for women and those with a need for English Language Training.
- Coal Mining Industry Labour Adjustment Package (COAL LAP) provided some assistance for workers retrenched from the Coal Mining Industry as a result of industry restructuring in New South Wales and Queensland.
- North Queensland Rainforests Labour Adjustment Package (Rainforests LAP) providing re-employment assistance, and cash compensation payments to ameliorate immediate dislocation for timber industry workers retrenched as a result of the decision to nominate the Queensland Wet Tropical Rainforests for the World Heritage List.

Individuals are eligible for assistance if they have been retrenched from one of the above industries after a period of service, usually twelve months, although there are variations in each package. In addition, workers in regions where an OLMA package has been established may be eligible if they have demonstrably been affected by structural change.

Under these packages assistance to the individual is typically tailored to his/her needs and choices. With some exceptions, the individual has access to a core of program measures (modelled on those available from the mainstream programs JOBTRAIN, JOBSTART and Mobility Assistance) providing either one or a combination of:

- short term vocational training (from an approved educational, industry or enterprise based training provider), together with income support, and English language training as required;
- · temporary wage subsidies paid to an employer; and/or
- relocation assistance to seek jobs in another area or region, including removal costs where appropriate.

In addition there is some budget flexibility to adapt existing Department of Employment, Education and Training programs to suit particular circumstances.

# SkillShare—The Community and Youth Network For Employment and Training

The objective of the SkillShare program which commenced on 1 January 1989, is to enable long-term unemployed people, particularly those unemployed for twelve months or more, and other most disadvantaged unemployed people, to obtain and retain employment or to proceed to further education or training, through the provision of skills training (including personal support and referral) and enterprise activities by groups in the community with demonstrated capacity to deliver such services.

Sponsor bodies comprise non-profit community organisations specifically established for the purpose of sponsoring a SkillShare project, existing non-profit community agencies or organisations, or local government authorities which are funded to provide a program of activities, including structured skills training and job search training during an annual (calendar year) grant period for the target group in their local area.

The SkillShare target group is long-term unemployed people, particularly those unemployed for twelve months or more and other most disadvantaged unemployed people who:

- are likely to benefit from a community-based approach to labour market assistance; and
- do not have ready access to other employment, further education and training opportunities.

The other most disadvantaged unemployed people include:

- people with disabilities;
- young people who are at risk such as the homeless, wards of state, ex-offenders, those from single-parent families or those dependent on pensions or benefits or those who left school before the successful completion of Year 10;
- · Aboriginals;
- migrants with English language difficulties and/or from culturally different backgrounds which inhibit their employment prospects;
- sole support parents including those in receipt of supporting parents benefits;
- offenders, ex-offenders and homeless people;
- people who have lost or will lose eligibility for supporting parents benefit or widow's pension.

Sponsors provide regular reports on their activities and records of participants and these are currently being monitored as part of Departmental program participation monitoring.

From 1 January 1989, 354 SkillShare projects have assisted just under 50,000 participants from the most disadvantaged unemployed; it is expected that at least 60,000 people will be assisted in 1989.

Each of the 354 projects funded through SkillShare and currently operating throughout Australia is expected to assist an average of 180 participants in 1989. The cost per participant in 1989 is estimated to average \$950.

As a result of broader initiatives announced in the 1989–90 Budget, SkillShare Special Services Grants are also available to eligible community organisations in 1990 to provide labour market brokerage pilot services to people with disabilities and older unemployed and to deliver additional assistance to disadvantaged young people to enable them to participate successfully in mainstream training programs.

# **Aboriginal Employment**

The objectives of this sub-program are to enable Aboriginal people to obtain equitable representation in employment and hence contribute to the promotion of Aboriginal economic independence, by:

- increasing the levels of permanent employment for Aboriginal people in the mainstream labour market; and
- generating employment within Aboriginal communities located in rural and remote areas.

These are addressed through the Aboriginal Employment Development Policy (AEDP) comprising, with the Department of Employment, Education and Training the following component programs:

- Training for Aboriginals Program (TAP), which aims to improve training and employment opportunities for Aboriginal people by:
  - --- assisting private and public sector employers to develop recruitment and career development strategies for Aboriginal people in the mainstream labour market;
  - negotiating with employers for training assistance linked with employment outcomes;
  - recognising and supporting community-based employment and training, including training support to enterprises and community development projects; and
  - providing assistance for vocational training in formal and short-term special courses.
- Aboriginal Employment Action (AEA) which encourages large employer corporations to develop recruitment strategies for increasing Aboriginal employment.
- Aboriginal Enterprise Incentive Scheme (AEIS) which provides assistance to unemployed Aboriginals to become self-employed in business.
- Enterprise Employment Assistance (EEA) which provides wage subsidies to Aboriginal enterprises to create employment opportunities.

# **Other Assistance**

# Allowances

To assist disadvantaged job seekers to undertake training or re-training, the Formal Training Allowance (FTA) is made available. This is to support living and other costs during course participation and is payable to eligible people participating in the formal training programs, which are:

- JOBTRAIN;
- SkillShare;
- Training for Aboriginals Program;
- · elements of Special Apprenticeship Training;
- · the national skills shortages element of the Skills Training Program; and
- training elements of New Enterprise Incentive Scheme.

To be eligible to receive FTA, people are generally unemployed for at least six months in the last nine or are otherwise especially disadvantaged in the labour market. FTA is also payable to those who are retrenched or subject to retrenchment under the provisions of various industry and regional employment assistance programs. FTA includes:

- a living component equivalent to the total Unemployment Benefit/Job Search Allowance entitlement of the trainee;
- a training component \$30 for those aged 21 and above;
- a Living-Away-From-Home Allowance (LAFHA) for people who need to move to undertake training, and a Home Base Maintenance Allowance for trainees on LAFHA who also maintain a home base;
- ancillary allowances such as for books and equipment, special fares assistance.

## Child care

Some assistance with child care is available to sole parents to improve their employment prospects by facilitating their entry into training or education. The Children's Services Program (CSP) administered by the Department of Community Services and Health is the major Federal program for child care.

Additional assistance is provided under Child Care Assistance (CCA) for sole parents who are undertaking formal training or education under DEET programs and who are not participants on the Jobs, Education and Training (JET) program. Temporary childcare places are provided for the duration of training/education. Subsidy is payable for child care which is provided through the CSP or other non-profit bodies and organisations, and currently requires a minimum parent contribution of \$14 per week for full-time care for one child and \$16 per week for 2 or more children.

# LABOUR MARKET PROGRAMS AND SERVICES EXPENDITURE (\$'000)

	(\$'00	(0)				
Type of program	1983-84	1984-85	1985-86	198687	198788	1988-89
Training Programs—						
Vocational Training for Young People-						
Australian Traineeship System	_	_	2,087	13,565	28,607	40,726
Formal Training Assistance for Youth	14,564	16,121	14,854	13,615	(a)	(a)
Experimental Training Projects	1,034	1,807	664	1,720	(a)	(a)
Youth Training Program $(b)$	_		_		25,890	(c)
JOBTRAIN	_		_	_		(d)72,800
Bridging Training for Overseas						
Qualified Professionals		—	_	_		1,900
Trade Training—	~ ~ ~ ~ ~					
CRAFT	86,603	99,362	88,075	96,252	102,617	120,124
Special Apprentice Training	23,323	21,865	20,213	18,860	16,825	14,825
Adult Training (e)—					(000 400	
Adult Training Program		-	4 0 1 7	10 455	(f)29,480	(g)
General Skills Training	11 222	0 (70	4,917			
Labour Adjustment Training	11,223	9,670	4,616	(h)2,064		
Skills in Demand	2,068	3,092	(i)3,419	_		
General Training Assistance— Formal	3,746	4,473	(j)3,661			
On-the-job	1,842	848	(j)3,001 (j)739			
Former Regular Service Members'	31	11	10			
Vocational Training Scheme-	51	11	10	—		
Formal (Disabled)	1,120	476	(j)488	_		
Industry Training Support—	1,120	470	()/+00			
Industry Training Support	6,943	8,649	11,716	12,711	12,749	13,959
Innovative Training Projects		0,017		12,711		6,864
National Skills Shortages			1,061	4,308	(k)	(1)2,600
Job Creation and Employment Assistance			1,001	.,500	(10)	(1)_,000
Job Creation—						
Community Employment Program	285,422	405,543	289,220	(m)196,269 (	(m)99,454	( <i>m</i> )153
New Enterprise Incentive Scheme (n)	· —	´—	705	2,722	3,298	4,018
Wage Pause Program (o)	101,100	_	_	·	·	·
Employment Incentives—						
JÓBŠTART						
Private Sector	_	—	(q)18,787	113,972	105,690	68,300
CWEP	_	—	(S)	10,393	2,794	
Work Experience (SYETP)	120,192		(1)61,714			
Adult Wage Subsidy Scheme	23,200		(t)25,432			
Special Needs Clients	1,938	2,333	(t)1,763			
Disabled On-the-Job	7,161	9,234	( <i>t</i> )7,146			
Mobility Assistance—	2 407	2.014	0.000	2 2 2 4	2 5 5 2	0.506
Relocation Assistance Scheme	3,497	3,016	2,629	3,334	3,552	2,526
Fares Assistance Scheme	416	451	501	665	994	1,344
Industry Labour Adjustment		2 100	894	0.964	12 200	
Assistance Community Based and Aboriginal Program—		3,198	094	9,864	15,5091	(u)14,403
Innovative Rural Education						
and Training Program						1,784
SkillShare (v)	_	_	_		_	64,876
Community Youth Support Scheme	21,348	26,056	31,540	35.092	35,489	
Community Training Program—	21,510	20,000	51,510	55,072	55,105	
Community Youth Special Projects	2,794	3,342	4,586	(w)	_	
Work Preparation Program	1,506	2,594	2,473	(w)	_	
Locally Based Projects			935	14,181	14,853	
Information Technology Centres	_		354	935	3,942	
Community Volunteer Program	_		_	1,801	3,419	
Volunteer Youth Program	392	529	816	(x)	·	
Aboriginal Employment & Training	41,040	53,356	58,477	63,232	72,199	72,565
	<b>BCA 803</b>	000 033	((A 400	(24.010	575 3 A1	E02 7/7
Total	/62,503	808,833	664,492	634,010	575,241	503,767

Source: Department of Employment, Education and Training

For footnotes see next page.

(a) Subsumed under Youth Training Program. (b) In 1987–88 the Youth Training Program replaced the under 21 year old element of the former Formal Training Assistance for Youth, Experimental Training Projects and Adult Training (Local Skills Training element) Programs. (c) Replaced by JOBTRAIN. (d) Includes \$26.2m for Formal Training Allowance. (e) Expenditure in 1985–86 relates to approvals in the period 1 January 1986 to 30 June 1986. This program replaced General Training Projects and Adult Training (Local Skills Training element) for Disabled. (f) In 1987–88, the Adult Training Program replaced the 21 and over element of the former Formal Training Allowance for Youth, Experimental Training Program replaced the 21 and over element of the former Formal Training Allowance for Youth, Experimental Training Projects and Adult Training (Local Skills Training element) Programs. (g) Replaced by JOBTRAIN. (h) In 1986–87, this element formed part of the Adult Training Program; in 1987–88 it formed part of Industry and Regional Employment Assistance. (i) Expenditure relates to approvals on Skills in Demand projects approved prior to 1 January 1986. This program was then replaced by the National Skills element of the Adult Training Program. (k) In 1987–88, the adult Training Allowance. (m) No new funds were appropriated to the Department of Finance. (a) Expenditure relates to approvals in 1987–88 and 1988–89. Expenditure was for commitments entered into in 1986–87. (o) Funds were appropriated to the Department of Finance. (a) Expenditure relates to approvals in the period 1 December 1985. do Jous 1985. This scheme replaced private sector assistance for Work Experience, Adult Wage Subsidy Scheme, Special Needs Job Seekers and Disabled On-the-job. (s) From 2 December 1985. Commonwealth SYETP became the CWEP element of JOBSTART. Expenditure was treated from the integration of the SWETP, (i) Expenditure relates to approvals to 30 November 1985 (except in the case of Commonwealth SYETP where expenditure refers to approvals to

LABOUR MARKET	PROGRAMS AN	D SERVICES	<b>APPROVALS</b> (a)

		1985-86	1900-07	1907-00	<u> 1988–89</u>
-		1.000	7.085	10.166	13,659
15.204	15.246		9,800		(b)
369	630	387	330		(b)
		_	_		(d)
_			_	·	33,600
_			—	_	170
81.986	80,300	75,600	89,709	86,615	87,122
14,537	11.514		(e)5,406	5.619	3,862
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_		3,090	7,000	15,352	(g)
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30.450	46.670	37.019	(l)21.000	9.659	<i>(m)</i>
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50.718	39,893	(1)16 362		_	
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	24 383	(1)10 187			_
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13.074	11 943	(1)5 393		_	_
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4,140	4.643	(t)2,518	_		_
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15,204 $15,246$ $11,845$ $9,800$ $(b)$ $369$ $630$ $387$ $330$ $(b)$ $   -$

For footnotes see end of table.

Type of program	<u> 1983–84</u>	1984-85	1985-86	1986-87	1987 <u>–88</u>	1988-89
Mobility Assistance						
Relocation Assistance Scheme	2,790	2,290	1,749	2,480	1,890	1,342
Industry Labour Adjustment		-				
Assistance	_				1,149	1,148
Community Based and Aboriginal				•		
Program—						
Innovative Rural and				•		
Education Training Program						1,500
SkillShare (u)	—		_		_	119,633
Community Youth Support						
Scheme (v)	70,000	75,000	85,000	100,000	100,000	
Community Training Program—						
Community Youth Special						
Projects (w)	956	1,202	1,331	(x)	_	_
Work Preparation Program						
(Disabled)	460	482	557	(x)		
Locally Based Projects	_		38	4,350	4,818	
Information Technology Centres	_			150	294	
Community Volunteer Program	_			7,000	18,000	
Volunteer Youth Program (y)	2,200		4,100			
Aboriginal Employment and Training	9,162	9,998	10,173	11,426	10,971	10,722
Total all programs	361,988	343,334	321,708	333,263	321,731	339,261

#### LABOUR MARKET PROGRAMS AND SERVICES APPROVALS (a)-continued

Source: Department of Employment, Education and Training

(a) An approval is defined as a person who was approved for, and commenced under, a specific program, for which financial assistance was available. An approval is registered each time an individual commences in a different component of a program, or in different programs, i.e. the total number of training or course places to be funded or job placements/commencements (CEP) are used instead of approvals. These have been included as approvals, given the explanation above. It should be noted that the total number assisted under any program in a financial year exceeds the number of approvals, owing to a carry-over between financial years. (b) Subsumed under Youth Training Program. (c) In 1987–88 the Youth Training Program replaced the under 21 year old element of the former Formal Training Assistance for Youth, Experimental Training Brojects and Adult Training (Local Skills Training element) Programs. (d) Replaced by JOBTRAIN. (e) The lower figure in 1986–87 reflects the decision to discontinue the Pre-Apprenticeship Allowane from 1 January 1987. (f) This program replaced General Training and National Skills Shortages in 1985–86 relate to the period 1 January 1986. In 309. En 987–88, the Adult Training Progets and Adult Training (Local Skills Training and Skills Shortages in 1985–86 relate to the period 1 January 1986. In 309. Experimental Training negative and Adult Training (Local Skills Training in 1987–88 ti formed part of Industry and Regional Employment Assistance. (i) Approvals relate to Skills in Demand projects approvals relate to the period 1 July 1985 to 31 December 1985. This program was then replaced by the General Skills Training element of the Adult Training Program. (k) It should be noted that the CEP figures represent placements made in each financial year regardless of the year of projeram. (n) This figures refer to placements recorded by the General Skills Training element of the Adult Training Program. (k) It should be noted that the CEP figures represent placements made in each financial year

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Measurements And Usage (Occasional Paper No. 1986/1)

# SALINITY—AN OLD ENVIRONMENTAL PROBLEM

## (This special article has been contributed by D.R. Williamson, CSIRO)

In Australia, problems of high salinity have been associated generally with irrigation of soils in semi-arid areas. However, excessive salt content of soils in the much more extensive areas of non-irrigated agricultural land has become significant within the last 50 years, as the ability to clear vast areas of land followed the development of mechanical farming equipment. As the water resources of the continent have been exploited, the increasing demand, particularly since the 1940s, has highlighted the progressive degradation of rivers in many areas. The best known example is the River Murray, though others include the Blackwood River and Murray River in Western Australia, and the Glenelg River in south-western Victoria.

# Terms used in salinity

## Salinity

Salinity describes the content of salts in soil, or in water. The most common chemical components are sodium, chloride, calcium, magnesium, potassium, bicarbonate and sulphate. The first two components dominate in most of Australia, accounting for 50 to 80 per cent of total salt content.

The salinity of water refers to the content of salts (as milligrams per litre, mg/L) dissolved in the water, usually termed the total soluble salts (TSS). This reflects the method of measurement by summation of the individual ionic components.

The salinity of soil refers to the content of soluble salts contained in the soil, and may be expressed as a percentage by weight of dry soil.

## Saline soil

A saline soil contains sufficient soluble salts to reduce or eliminate plant growth.

## Soil or water salinisation

Soil or water salinisation is the process of salt accumulation in the soil or water to the extent of adversely affecting the use of the soil for plant growth, or the water for supply to humans, stock, or industry.

The salt content of water affects its electrical conductivity (EC), allowing a simple measurement to be made which is correlated with the TSS content in mg/L.

## **EC Units**

Many water agencies use the term EC Units. This involves a measurement of the electrical conductivity of the water from which salinity is estimated. A commonly adopted relationship is

# TSS = 0.65 EC units

where an EC unit is one milli Siemen/centimetre.

## **Primary salinity**

In Australia, there are areas with naturally saline water or soils in which the salinity levels have always restricted the range of possible uses. This is called primary salinity. They include salt marshes, salt flats and salt lakes, some in coastal regions, others well inland in semi-arid or arid regions. All are associated with highly saline groundwaters and often internal drainage. The estimated area of this type is 14 million hectares (ha). A further 15 million hectares of land in arid and semi-arid regions have naturally saline sub-soils, but no groundwater in the profile. If the vegetation is removed, the salt may be redistributed to the soil surface.

## Secondary salinity

Human activities have resulted in adverse changes in the salinity of soils or waters. This is called secondary salinity, and is the type which is the subject of this article. There are two types of secondary salinity depending on the absence or inclusion of a groundwater system in the development and maintenance of salinity. The former type is usually found in the low rainfall pastoral regions of the middle latitudes of Australia. When excessive grazing causes soil erosion, the saline or sodic subsoils are exposed. The high sodium content assists the dispersion of the exposed subsoil to form a thin crust which substantially reduces infiltration of rain water. These areas remain devoid of vegetation, although there is no evidence of significant salt content in the water which runs off during rainfall. These areas are described as scalds. They are not associated with a groundwater system nor do they contribute to stream salinity.

## Saline seeps

The secondary salinity problems in which groundwater is a key component have an impact on soil, vegetation and water resources. The salinity develops as the result of discharge of groundwater. In irrigated areas these saline soils are frequently termed scalds, but in non-irrigated lands the salt affected areas are called **saline seeps**. A saline seep is an area where salts accumulate at the soil surface as a consequence of the groundwater discharge from a confined or unconfined aquifer.

Excessive soil salinity creates an osmotic effect which makes it more difficult for plants to absorb water from the soil. Excessive salt content of the solution taken up from the soil may also have a toxic effect on the plant.

Soil surveyors have put 0.2 per cent salt content (by weight) as the upper limit for surface soils and 0.3 per cent for subsoils. Water salinity has a recommended upper limit for human consumption of 500 mg/L (TSS), though a salt content up to 1,500 mg/L (TSS) is acceptable, but some medical problems could be expected. Some authorities set upper limits for sodium content since excessive intake may contribute to hypertension. Guidelines for acceptable salinity of water for farm animals show variation depending on animal type and condition. Whereas 2,000 mg/L is the recommended maximum for poultry, dry sheep can maintain condition even at a salinity of 13,000 mg/L provided magnesium content is low.

# Extent of secondary salinity of soil and water

A summary of the extent of current human-induced salinity of soil and water is given in the table below.

	Area of se	condary sali	nised soils	Area of shallow groundwater	Divertible water reso	
		Saline seeps on-irrigated)	Irrigated saline soil	(<2m) in irrigated lands	with >1,50	0 mg/L TSS
State	'000 ha	'000 ha	'000 ha		mil. m <sup>3</sup> /year	% of total
New South Wales	920	14	10	260	0	0
Victoria	60	100	144	385	220	2
Queensland	580	8	1	0.5	0	0
South Australia	1,200	225	0.5	4.5	82	(a)21
Western Australia	340	443	0.5	0	1,024	9
Tasmania	0	8	0	0	0	0
Northern Territory	680	0	0	0	0	0
Total	3,780	798	156	650	1,326	1

#### THE EXTENT OF HUMAN-INDUCED LAND AND WATER SALINITY IN AUSTRALIA

(a) Excludes imported water resources via River Murray.

# Soil

The major areas of non-irrigated saline soils are in the southern half of the continent, and have an associated impact on the surface water resources. Frequently, the best agricultural land in the valleys is where the saline soils develop. The scalds are located primarily in regions receiving less than 400 mm rainfall per year where grazing of natural vegetation is the dominant agricultural practice. The Murray–Darling Basin supports 75 per cent of Australia's irrigated lands, with the consequence that New South Wales and Victoria contain 99 per cent of the area of saline irrigated soils.

# Surface water

Excessive salinity of major divertible water resources in Victoria is found in streams along the south-western coast, and in the Avoca River. Rivers along the Millicent Coast and the Broughton River account for over 80 per cent of the salinised surface water resources in South Australia. In the south-western region of Western Australia brackish and saline waters are 36 per cent of the total divertible resource. The affected streams occur where rainfall is less than 900 mm/year and extensive land clearing has taken place. A further 865 million cubic metres per year ( $m^3$ /year) of Australia's surface water resources are in the marginal quality category (between 500 and 1,500 mg/L TSS) located primarily in the same river basins mentioned above.

## Groundwater

The extent of salinity in the major groundwater resources in Australia is given in the following table. There is very limited information on the volume of these groundwater resources which have been degraded since European settlement. The major impact appears to be associated with over exploitation for irrigation or industrial use, resulting in salt water intrusion into previously good quality aquifers.

State	Divertible	Divertible groundwater resources with >1,500mg/L TSS						
	Surficial aquifers	Sedimentary aquifers	Fractured rock aquifers	Percentage of total resource				
		mil. m <sup>3</sup> per year						
New South Wales	165	570	0	34				
Victoria	0	92	7	11				
Queensland	320	43	36	14				
South Australia	0	456	5	38				
Western Australia	321	508	84	33				
Tasmania	6	2	0	6				
Northern Territory	2	51	0	1				
Total	814	1,722	132	19				

THE EXTENT OF SALINITY IN MAJOR GROUNDWATER RESOURCES IN AUSTRALIA

Source: 1985 Review of Australia's Water Resource and Use. AWRC (1987).

# Trend in secondary salinity development

Soils

Dryland salinity is expanding at about 2 per cent per year in Victoria. The average rate of increase in area of salt-affected soil in the south-west of Western Australia has been 6,000 ha/yr in the past 35 years, and no declining trend has been observed in recent years. The estimated area of saline seeps in South Australia has increased by 170,000 ha since 1982, though part of this may be a consequence of better assessment methods being applied. Based on limited data, it was predicted in 1982 that the area of salt-affected non-irrigated land in Australia would be about 900,000 ha by the year 2000. At current trends this will be exceeded.

204

## Shallow water tables

Without artificial drainage, the area of shallow groundwaters is expected to increase in irrigation areas and create conditions leading to increased soil salinity. Within the next 40 years, shallow water tables could underlie 70 to 80 per cent of the Murrumbidgee Irrigation Area, 40 per cent of the Shepparton Region, and 90 per cent of land in the Kerang region. This situation could leave 15 to 25 per cent of the land with salinity high enough to render the land totally unproductive. The extensive drainage program in South Australia's Riverland region has lowered water table levels sufficiently to prevent further increase in soil salinity.

## Groundwater

There is a lag between agricultural development and the full expression of its impact on the groundwater system. The effect of clearing may continue to cause rising groundwater levels in the immediate future, and where lag times are tens of years the effect on soil, groundwater and stream salinity may only now be beginning to appear.

The frequency of occurrence of salt water intrusion problems in groundwaters is expected to increase with continuing development in coastal zones, though correct management of extraction will avoid problems. Continuing excessive exploitation of groundwaters in inland areas to meet irrigation demands will lead to rising salinity. This issue will be encountered until the use is managed within the safe yield of the aquifer systems.

## **Causes of secondary salinity**

There are three basic requirements for salt to become an environmental problem:

- a source of salt;
- a source of water in which the salt may be dissolved; and
- a mechanism by which the salt is redistributed to locations in the landscape where it can be damaging, including into rivers.

Over 200 years ago European settlers began the removal of the native vegetation (usually *Eucalyptus* species) for development of both dryland and irrigated agriculture, particularly cereal cropping, grazing of sheep and cattle, and horticulture. This clearing accelerated in the period since 1900. About 3 per cent of agriculturally developed lands are irrigated through government or privately managed water supply schemes.

## The source of salt

Many Australian soils have always contained high quantities of salt stored in depths of 30 metres or more. Most of the agricultural soils are quite old in geological terms, with deeply weathered or thick alluvial deposits of clays under the cultivated zone. Soil surveys have shown that about 238 million hectares are classified as containing high quantities of salt. About 50 per cent of these soils have been developed for intensive agriculture. However, this identifies only the salt content of the soil layer which is usually considered to extend to about 1 metre depth below the land surface.

The total salt content for the whole profile to basement rock has been studied extensively in the south-west of the continent. There is a systematic increase in stored salt with decreasing rainfall, ranging from 200,000 kg/ha at about 1,000 mm/yr rainfall to 1 million kg/ha at 600 mm/yr rainfall. Slightly lower quantities of salt have been measured in the northern slopes of Victoria over a similar rainfall range. Approximately 75 per cent of this salt is stored in that part of the profile which was unsaturated with water at the time of vegetation removal. For the deep sandy profiles of the Murray Mallee in South Australia, the unsaturated zone is quite low in stored salt to depths of about 30 metres compared to the groundwater zone below in which the majority of salt is contained.

This accumulation of salt may originate from several sources: the ocean via rainfall, weathering of soil and rock minerals, and marine deposition in earlier geological periods.

The input via rainfall has been measured at 300 kg/ha/year near the coast, about 30 kg/ha/year at 250 km inland, and about 15 kg/ha/year at greater than 600 km inland. The total salt input from rainfall to the 106 million hectares of the Murray–Darling Basin in 1974–75 was measured at about one million tonnes per year. The rate of release of salts due to weathering of soil and rock minerals undoubtedly varies greatly, but addition to the soil profile is believed to be less than one-hundredth of that brought in by rainfall. Using the present salt input data, the measured salt storages could have been accumulated during the last 60,000 years.

In irrigation areas, the salt stored in the soil is supplemented by salt brought in via the irrigation water applied. The application of 1 metre depth of water with a salt concentration of 500 mg/L TSS adds 5,000 kg of salt to each hectare of irrigated land.

These data identify the accumulations in recent geological times as the major source of salt. This salt is located in both the unsaturated zone of the profile and also in the accumulated groundwater where concentrations as high as 20,000 mg/L TSS are not uncommon.

## The source of water

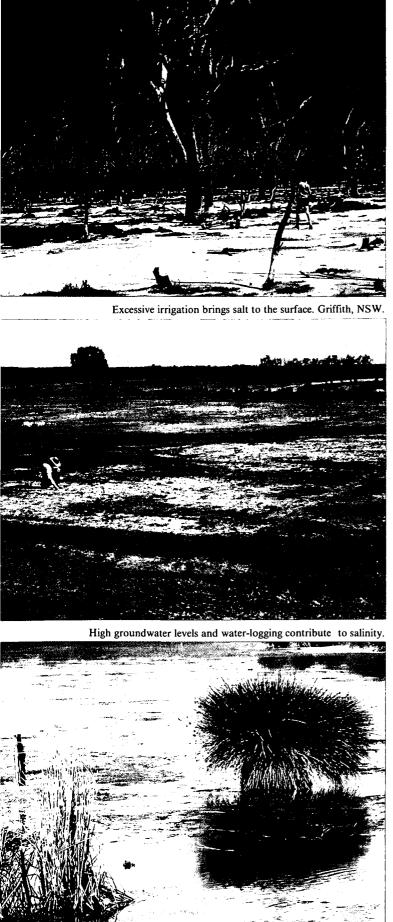
The change from deep-rooted perennial plants to shallow-rooted annual crops and pastures produces a reduction in evapotranspiration and an increase in net precipitation, that is, an increase in the amount of rainfall actually reaching the soil surface. Removal of the native vegetation decreases the interception loss estimated at between 9 and 13 per cent of rainfall in experimental forested catchments in Western Australia. The overall result is an increase in the volume of water draining below the root zone of the agricultural plants, and a cessation of any withdrawal of water by plants from the groundwater during periods of low rainfall. Groundwater levels rise and, even if no change in the gradient of the water level occurs, there will be an increase in the volume of water moving towards discharge sites either at a seepage area, or directly into a stream, at a lower elevation in the landscape.

The initial effect is usually an increase in the quantity of groundwater moving into the stream so that the impact is dependent on the salinity of the groundwater nearest the stream. The clearing of the land also increases the amount of surface run-off, which, because of its low salt content, dilutes the additional salt added to the stream from groundwater. The table below gives examples of the increase in salt load of streams due to clearing within the catchments.

The source of water for mobilising salt in irrigated lands is the excess water applied during irrigation. It is recommended practice to apply excess water above plant needs to leach away the salt which would otherwise accumulate in the root zone. The ability to control the volume applied for leaching is difficult. Excess application is often compounded by management practices because the timing of water application is often determined by water supply rather than by plant demand for water.

EXAMPLES OF SALT LOAD INCREASE IN RIVERS FOLLOWING
CLEARING FOR AGRICULTURE

River Catchment	Factor by which saltload has increased
Dale River (WA)	19
Collie River (East) (WA)	15
Axe Creek (Vic.)	10
Avoca River (Vic.)	10
Finniss River (SA)	8
Bremer River (SA)	6
Hughes Creek (Vic.)	4
North Para River (SA)	4



Dead forest in Salty Marshland South-west WA.



Oak and eroded soil.



Agriculturally productive land now barren wasteland. Western Australia.



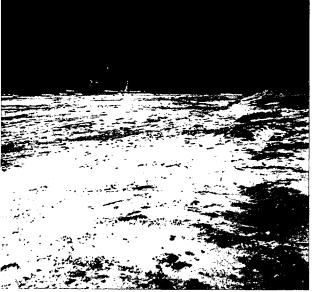
Salt crystal deposits above the waterline at Quairading, Western Australia.



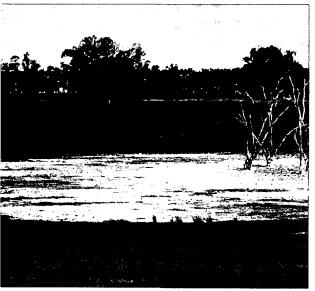


Salinity seepage area in the wheatbelt of WA

Salt deposits formed on the base of trees at Quairading, Western Australia.



Salt encrusted surface in North-west NSW.



Salinity encroaching on productive land near Griffith, NSW.



Salinity induced erosion at Yass catchment, NSW.



Salinity in the wheatbelt of Western Australia.

Salinity developing in Cooke Plains, SA.





#### The mechanisms for redistributing salt

The salinity problem is a groundwater problem. This identifies the primary mechanism by which redistribution of salt occurs. Stored salt is dissolved by the water moving vertically and horizontally underground and transferred to places of lower elevation in the landscape. A saline seep is a zone of groundwater discharge. Often this discharge occurs directly into the bed of a stream.

The patterns of subsurface water movement in a landscape are complex, depending on the variations in porosity of soils and rocks, the existence of layers with different hydraulic properties, the distribution of the input of water from the land surface modified by plant type and density, and the relief of the landscape. The groundwater may occur as an unconfined aquifer in one part of the landscape leading into a confined aquifer further down-slope. Analysing this variability has been aided significantly by computer modelling, though obtaining the data for parameters in the models is a challenge.

Thus it is often difficult to determine why a saline seep exists where it does, or where the major water input (recharge) areas are located, without carrying out a drilling program to examine the profile features and monitor the groundwater hydrology. The heterogeneous nature of the soil and weathered zone materials underground was ignored until about 10 years ago.

Despite the complexity, a number of important hydraulic factors have been established. Usually the groundwater conveying salt to seepage zones has to move through weathered rock material such as clay which has a resistance to the movement of the water. Frequently there is a two layered groundwater system. The shallow aquifer is usually the dominant source of water with the deeper aquifer the major source of salt discharging to the saline seeps and into streams.

Geophysical methods are being increasingly employed to identify the features which control the movement of water and salt. The location of saline seeps is often related to subsurface structural features. An example is an elevated basement rock which acts like a subsurface dam wall.

Irrigation areas are generally located in landscapes of low relief. The excess irrigation water develops a groundwater mound underneath the area from which the horizontal flow of groundwater has a low gradient. Consequently, drainage into regions outside the irrigated area are quite limited. If in the surrounding dryland agriculture lands there is some groundwater recharge due to the removal of native vegetation, the drainage of groundwater from the mound of water under the irrigation area can be further retarded.

## **Government** action

The concern for salinisation has been expressed in the establishment by State governments of committees to make a major investigation of the problems: firstly in Western Australia (early 1970s), then Victoria (1982), New South Wales (1987) and South Australia (1989). In a major policy statement in 1989, the Federal Government confirmed that salinity change in Australian agricultural landscapes was a large component in the degradation of the environment, and focused on the urgent need to halt and reverse the trends.

The River Murray and the country it drains has suffered enormous problems of salinity and associated land degradation for many decades. The River Murray Water Agreement (1914) has been the legislative vehicle for management of water quantity only. It was not until 1981 that water quality was included. An historic agreement in 1985 established the Murray–Darling Basin Ministerial Council with the task of promoting and coordinating effective management and planning for the Basin. The Council has already developed a major salinity and drainage strategy. The current salinity of the river is set as the quality baseline against which future changes will be gauged. Joint funding by the State governments of New South Wales, Victoria and South Australia, plus the Federal Government will implement new salt interception and land use management schemes. There has been agreement that future disposal of salt into the river must be offset by dilution or removal of salt sources elsewhere in the basin.

## Salinity management

It would be virtually impossible to eliminate all the stored salt, therefore, salinity management strategies need to eliminate the source of water or modify the mechanism which redistributes the salt.

## Engineering

The engineering solution uses pumps, wells and ditches to establish drainage systems. This has been the normal procedure to control salinity in irrigation areas in Australia. In some cases gravity drainage schemes have been possible. Final disposal is often by pumping the excess water either to remotely located evaporation basins for return to the river at high flow periods, or, if quality is satisfactory, back into the supply channel.

Large costs have been incurred for drainage schemes aimed at controlling and possibly reducing the salinity of the water of the River Murray passing into South Australia. Some are on-farm schemes managed by the owner with government control of effluent disposal. Major sources of saline groundwater flow to the river down stream of Echuca are intercepted and the water pumped to evaporation basins. Rather than use the river as both water supply and drainage ditch, a proposal for a pipeline to convey saline effluent to the ocean is currently the subject of a feasibility study.

The use of engineering methods for groundwater control in non-irrigated lands has been minimal because the economic costs are high. In some drainage studies maintenance problems have discourage further experimentation. A major problem is the difficulty of disposal of the saline (often above sea water concentration) effluent without associated stream degradation.

## **Reducing excess recharge**

It is generally accepted that the long-term solution to the salinity problem is through prevention of excess groundwater recharge. The water which currently passes beyond the root zone needs to be fully used in plant production. Because the excess recharge occurs over a large part of the landscape, though at variable rates, an approach involving the whole landscape is essential.

In irrigation areas there have been numerous methods tried to reduce excess recharge. Uniformity in infiltration of water applied during irrigation is achieved through the use of laser controlled land forming and grading, and this also assists the removal of excess surface water. For heavy textured soils land levelling is estimated to reduce groundwater accessions by 30 per cent for perennial and 60 per cent for annual pastures. The timing of the irrigation is equally important and demand scheduling techniques have been established which use climatic, plant and soil characteristics to establish time and volume of water application.

For the non-irrigated landscape the amount of rainfall which causes the rising water tables has been found from mass balance studies to be less than 10 per cent of annual rainfall, and often about 5 per cent. Agronomic management through use of different cropping rotations and alternative species is the most promising approach to increasing water use. Subterranean clover pastures have been found to be poor users of water by virtue of a shallow root system. The use of deeper rooted crops and pastures, and elimination of any period of fallow, are recommended. Cultivation practices are being examined as some produce compaction of the soil below the cultivated layer which may restrict root penetration. Simulation studies have suggested that increasing plant rooting depth to between 1 and 2 metres would provide the additional water use required to control recharge.

Although studies have been underway for many years, there is no recommended practical method which can demonstrate the reclamation of a saline soil or river. The very nature of the problem and potential solutions require long term field trials. However, many of the components which are expected to form part of the solution are reasonably well understood. Consequently, these have been used to develop 'best-bet options' for whole-of-landscape management. The involvement of land owners is a vital factor as economic and social issues will be as important as environmental issues in achieving a satisfactory reclamation strategy.

## Stopping clearing in catchments

An obvious control option is to stop clearing land in catchments which have substantial flows of good quality water but show a trend of increasing salinity. Legislation has been enacted in Western Australia which prohibits further clearing in five water supply catchments. The opening up of new farm land in the Glenelg River (Vic.) basin did not proceed in the 1960s because it was shown that salinity of the Rocklands Reservoir would increase to unacceptable levels.

## Reafforestation

Reafforestation has received considerable support as the primary means of controlling non-irrigated salinity. The earliest work involved planting of trees immediately upslope of the saline seep, anticipating that the trees would act as biological drainage pumps. This has not achieved the success hoped for, although there has been some lowering of groundwater levels. The Water Authority in Western Australia has used a strategy of tree plantings in discharge areas to reduce the quantity of saline water seeping into streams. The lowering of groundwater levels by less than 1 metre over several years has occurred, but there has been an associated reduction in surface run-off which has affected the net salt concentration of stream flow.

There is no doubt that more trees are needed in rural landscapes, but they will be only part of the answer for economically reducing the cause of salinity. Tree plantations of varying densities have been established both for experimental purposes and by private land owners. It has been found that the impact on reducing groundwater levels is related to the percentage of the landscape reforested. The location and area of reafforestation will probably be determined by knowing where the major recharge areas occur in a landscape. Scientists are placing this issue high on the priority list for research.

## Agroforestry

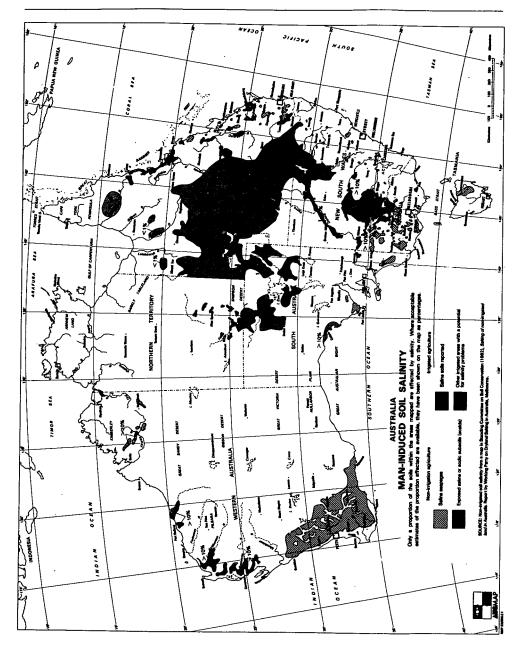
Combining crops and pastures with strips of trees, the agroforestry approach, has considerable appeal because it appears to include the most favourable economic benefit. Considerable knowledge has been gained in the cultural practices required to establish and maintain a viable agroforestry system including aspects such as the amount of damage to trees by stock, the effect of certain tree species in suppressing growth of grasses adjacent to the trees, and the spacing between rows of trees. A new industry of tree farming has emerged in agricultural areas where there is a demand for pulpwood.

### Salt land can be used

While efforts have been made to develop strategies to control dryland salinity, the management of the saline areas to obtain some economic return from otherwise waste land has been successful. The grazing potential of salt tolerant species and the grazing management procedures for a sustainable saltland pasture have been established particularly in Western Australia. It has been found that water loss from vegetated saline areas is considerably better than from bare saline soil.

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211