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NEW ISSUE

# CAREER PATHS OF PERSONS WITH TRADE QUALIFICATIONS, AUSTRALIA, SEPTEMBER TO NOVEMBER 1982

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### **EXPLANATORY NOTES**

# Introduction

As part of a survey conducted throughout Austrlaia during the three months September to November 1982, information was sought enabling identification of persons with trade qualifications. Additional information included how and when they qualified, whether they had ever worked as a tradesperson, whether they used their trade skills in their job, whether they ever left the trade, if so, when and the reason why.

2. The survey was based on a multi-stage area sample of private and non-private dwellings. Specially trained interviewers asked the questions of 32,000 respondents throughout Australia.

# Scope

- 3. The survey includes all persons aged fifteen years and over except:
  - (a) members of the Australian defence forces living in military establishments;
  - (b) certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations;
  - (c) overseas residents in Australia;
  - (d) members of non-Australian defence forces (and their dependants) stationed in Australia;
  - (e) some patients in hospitals and sanatoria and inmates of reformatories, jails, etc., and
  - (f) persons aged 15 to 20 years still at school.

# **Definitions**

- 4. For this survey the term *employee* includes persons who, in their main job, worked for wages, salary or payment in kind or without pay in a family business. *In own business* includes all persons who worked with or without employees in their own business whether or not it was a limited liability company.
- 5. A trades qualified person is a person aged eighteen years or more and:
  - (a) who completed in Australia an apprenticeship in one of the fields of trade defined in paragraph 6 or
  - (b) had been recognised under the Tradesmens Rights Regulation Act in the metal or electrical fields.
- 6. Field of trade. Respondents indicated which of the following best described their field of trade:
  - (a) METAL e.g. fitting and turning, welding, boilermaking;
  - (b) ELECTRICAL e.g. electrician;
  - (c) BUILDING e.g. carpentry, painting, plumbing;
  - (d) FURNITURE e.g. upholstering, cabinet making;
  - (e) SERVICE e.g. hairdressing, dental technician;

- (f) FOOD AND DRINK e.g. cooking, butchering;
- (g) PRINTING AND ALLIED e.g. bookbinding, hand and machine composing;
- (h) MECHANICAL, AUTOMOTIVE e.g. motor mechanic, panel beating; or
- (i) FOOTWEAR, CLOTHING, TEXTILES e.g. bootmaking, dressmaking.
- 7. Year in which qualified. respondents covered by paragraph 5(a) above were asked in what year they qualified. Respondents covered by paragraph 5(b) above were asked in what year their qualifications were recognised under the Tradesman's Rights Regulation Act.

# Trade skills

- 8. Information was sought on respondents' usage of skills acquired in obtaining their trade qualifications, separate questions being asked of persons in their own business and employees (as defined in paragraph 4).
- 9. Employees were asked to indicate which of the following best described the use, in their main job, of those skills related to their nominated field of trade:
  - (a) Were not using trade skills;
  - (b) Worked as a tradesperson; or
  - (c) Were using some trade skills in job.
- 10. For persons in own business the survey did not differentiate between categories (b) and (c) i.e. whether they worked as a tradesperson or were only using some trade skills in an advisory or managerial capacity.
- 11. Worked as a tradesperson in consequence comprises persons who worked in own business as a tradesperson or who were only using some trade skills plus employees who worked as a tradesperson. Employees who were only using some trade skills e.g. in supervisory roles (foremen, inspectors, etc.) or an advisory capacity (salesmen, buyers, etc.) are separately shown as were using some trade skills.
- 12. Employed persons are those who were working in a job, business or farm, usually for one hour or more each week. Unpaid voluntary workers are excluded.
- 13. Unemployed persons are those who were not employed and who took active steps (as defined in The Labour Force, Australia (6203.0)) to find full-time or part-time work at any time in the four weeks prior to interview and were available for work in the week prior to interview.
- 14. The labour force comprises all persons who were employed or unemployed as defined above.
- 15. Full-time workers are those who usually worked 35 hours or more a week in all jobs combined. Part-time workers are those who usually worked less than 35 hours a week. When recording hours of work, fractions of an hour are disregarded.

- 16. Persons not in the labour force are those who, during the survey week, were not in the categories employed or unemployed, as defined above.
- 17. Total annual income. Questions were asked in respect of the amount of income received from each of the following sources: wages or salary; own business, farm, profession, etc.; share in a partnership; govenrment cash benefits; superannuation; workers' and road traffic accident compensation: interest, dividends, rent, etc.; other sources, e.g. trust or will, maintenance or alimony. Total annual income is defined as the sum of amounts received from these sources in 1981-82.
- 18. *Mean income* is the amount obtained by dividing the total income of a group (e.g. income recipients in a given age group) by the number in that group.
- 19. The following persons have been excluded from the table on annual income (Table 11):
  - (a) persons who had been overseas for the whole of 1981-82;
  - (b) females who changed marital status after 30 June 1981;
  - (c) persons who attended school (full-time) for part of the year 1981-82;
  - (d) persons who migrated to Australia after 30 June 1981;
  - (e) Australians who were overseas and not working for an Australian business for more than 12 weeks during 1981-82.

# Interpretation of results

- 20. Definitions pertaining to labour force status are not strictly comparable with those of the monthly labour force survey wherein a person is assigned a labour force status on the basis of a more extensive set of questions than those used in this survey.
- 21. The definition of trades qualified persons in this survey has been limited by the lack of standard procedures for recognising qualifications in Australia and overseas.

# Reliability of estimates

- 22. Estimates in this publication are subject to two sources of error:
  - (a) sampling error: since the estimates are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability, that is they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error. More information about this topic will be found in the Technical Note, page 15.

(b) Non-sampling error: inaccuracies may occur because of imperfections in reporting by interviewers and respondents and errors made in the coding and processing of data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures. In addition, although some respondents referred to their records, in many cases the answers to the questions on income were based on memory. Some understatement in the estimates may be expected because of imperfect recall or misunderstanding, particularly of minor or irregular sources of income.

# Related publications

23. Other ABS publications which may be of interest include:

The Labour Force, Australia (6203.0)—issued monthly

Labour Force Status and Educational Attainment, Australia, February 1982 (6235.0)

Income and Housing Survey, Income of Individuals, Australia, 1981-82 (Previously Income Distribution, Individuals) (6502.0)

24. Current publications produced by the ABS are listed in the *Catalogue of Publications, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

# Symbols and other usages

- \* subject to sampling variability too high for most practical uses. See paragraph 22 above.
- n.e.c. not elsewhere classified not applicable
- 25. Because figures have been rounded, discrepancies may occur between sums of the component items and totals.

# **SUMMARY OF FINDINGS**

There were an estimated 1,092,900 trades qualified persons most of whom (80.1 per cent) were in the labour force. There were 217,300 trades qualifed persons not in the labour force and therefore not using their trade skills, although 106,100 of these persons were aged 65 years or more. There were three other groups of trades qualified persons who were not using their trade skills. These were 55,100 persons who had never worked as a tradesperson; 10,800 unemployed persons who were not looking for work in their trade and 170,000 persons who were employed but were not using their trade skills. A further 111,700 employed trades qualified persons were only using some of their trade skills, while 85,700 were employed as tradespersons but had had a break from working as a tradesperson at sometime since they obtained their qualifications.

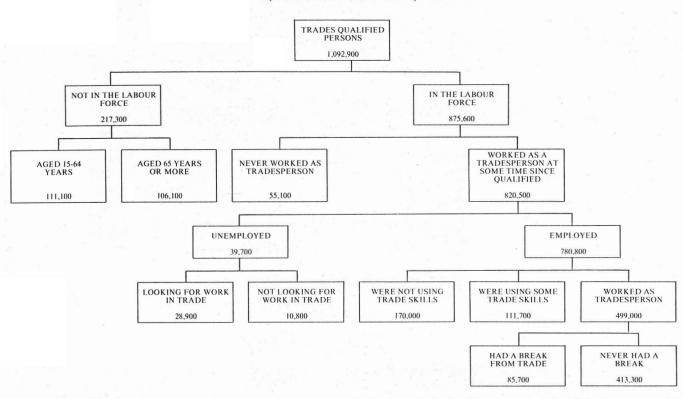


DIAGRAM 1: TRADES QUALIFIED PERSONS: CURRENT TRADE STATUS (Source of data: Tables 2 and 4)

55,100 trades qualified persons in the labour force had never worked as tradespersons. One of the reasons most often given by trades qualified persons for never having worked in the trade was poor pay, security or working conditions.

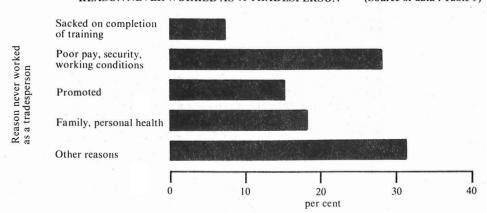


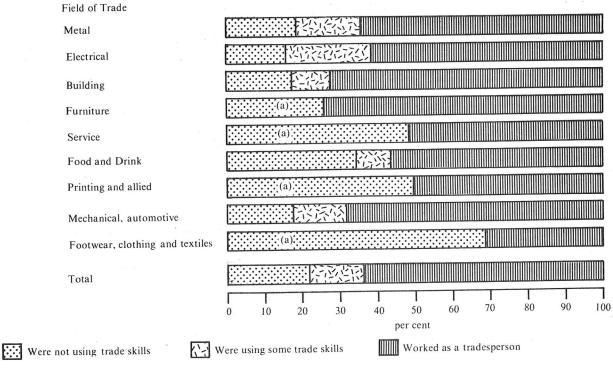
DIAGRAM 2: TRADES QUALIFIED PERSONS WHO HAD NEVER WORKED AS TRADESPERSONS:

REASON NEVER WORKED AS A TRADESPERSON (Source of data: Table 9)

The proportion of employed trades qualified persons who worked as tradespersons or were using some trade skills varies considerably between the fields of trade in which they were qualified. For employed persons with Footwear, clothing and textile trade qualifications, 31.3 per cent worked as tradespersons, compared with 74.2 per cent of employed persons with Furniture trade qualifications. Employed persons with Electrical trade qualifications had the largest proportion (22.7 per cent) of persons who were using some trade skills, while in several fields of trade only a negligible number of trades qualified persons were using some trade skills.

DIAGRAM 3 : EMPLOYED TRADES QUALIFIED PERSONS : LEVEL OF USE OF TRADE SKILLS IN MAIN JOB OR BUSINESS AND FIELD OF TRADE

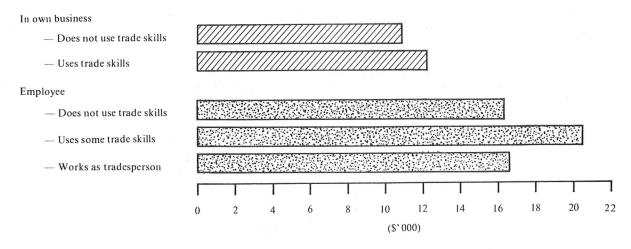
(Source of data : Table 10)



(a) Persons not using trade skills and using some trade skills are not shown separately.

For trades qualified persons in their own business, the average gross income of persons not using trade skills was not significantly different from that of persons using their trade skills. For trades qualified employees, the average gross income of persons not using trade skills was similar to those who worked as tradespersons. However, the average gross income of those using some trade skills was significantly higher.

# DIAGRAM 4 : EMPLOYED TRADES QUALIFIED PERSONS : USE OF TRADE SKILLS AND AVERAGE GROSS INCOME (Source of data : Table 11)



The main reasons for leaving the trade given by persons with some trade skills were promotion (37.7 per cent) and seeking better pay/job security (25.7 per cent). Persons who were not using trade skills also often gave seeking better pay/job security as their reason for leaving the trade (28.8 per cent), but relatively few of these persons attributed their departure to promotion (7.6 per cent). Persons who were not using trade skills reported they were dissatisfied with their jobs or wanted a change (23.9 per cent) or family, personal, health reasons (14.6 per cent). Persons using some trade skills less often reported they were dissatisfied with their jobs or wanted a change (15.0 per cent) or family, personal, health reasons (4.7 per cent).

DIAGRAM 5 : EMPLOYED TRADES QUALIFIED PERSONS WHO WERE USING SOME TRADE SKILLS OR WHO WERE NOT USING TRADE SKILLS IN JOB : REASON FIRST LEFT TRADE (Source of data: Tables 12 and 13)



TABLE 1. POPULATION AGED 15 YEARS AND OVER(a): LABOUR FORCE STATUS AND WHETHER QUALIFIED AS A TRADESPERSON

	Emple	oyed			Not in		
	Full time	Total	Unem- ployed	Labour force	labour force	Total	Unemploy- ment rate
	* **		—' <i>000</i> -	_			(per cent)
Trades qualified persons	787.7	829.5	46.1	875.6	217.3	1,092.9	5.3
Worked as a tradesperson at some time since							
qualified	741.1	780.8	39.7	820.5	(b)	820.5	4.8
Never worked as a tradesperson	46.6	48.7	6.4	55.1	(b)	55.1	11.6
Persons not trades qualified	4,492.6	5,500.5	465.7	5,966.2	3,673.7	9,639.9	7.8
Males	3,052.1	3,201.0	273.6	3,474.6	876.5	4,351.1	7.9
Females	1,440.5	2,299.5	192.1	2,491.6	2,797.2	5,288.8	7.7
Total(a)	5,280.3	6,330.0	511.8	6,841.9	3,891.0	10,732.8	7.5
Males	3,812.7	3,986.2	317.1	4,303.2	1,011.4	5,314.6	7.4
Females	1,467.6	2,343.9	194.8	2,538.6	2,879.6	5,418.2	7.7

<sup>(</sup>a) For exclusions see Explanatory notes, paragraphs 3 and 19. (b) Trades qualified persons who were not in the labour force were not asked whether they had ever worked as a tradesperson since qualifying.

TABLE 2. TRADES QUALIFIED PERSONS: YEAR IN WHICH QUALIFIED AND TRADE STATUS

					Year in wh	ich qualifie	ed			
Trade status	Males	Females	Before 1940	1940 to 1949	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1982	Total	
	—' <i>000</i> —							(per cent)		
Trade qualified persons	963.5	129.4	118.2	146.8	171.0	254.5	306.5	96.0	1,092.9	100.0
Not in the labour force	134.9	82.3	105.0	52.3	23.6	17.1	16.3	*	217.3	19.9
In the labour force	828.6	47.0	13.2	94.5	147.4	237.3	290.2	93.0	875.6	80.1
Never worked as a tradesperson	51.5	*	*	5.6	7.7	18.1	14.8	8.1	55.1	5.0
Worked as a tradesperson at some time										
since qualified	777.1	43.4	12.3	88.9	139.7	219.2	275.5	84.9	820.5	75.1
Unemployed	37.3	*	*	6.0	4.3	7.1	14.8	7.1	39.7	3.6
Were looking for work in trade	28.0	*	-	_4.3	*	4.8	12.0	5.9	28.9	2.6
Employed	739.8	41.0	11.8	82.9	135.5	212.1	260.7	77.9	780.8	71.4
Were not using trade skills	148.6	21.5	4.7	25.4	38.5	48.2	47.4	5.8	170.0	15.6
Were using some trade skills	110.3	*	*	12.9	25.5	36.9	29.6	4.2	111.7	10.2
Worked as a tradesperson	480.9	18.1	4.6	44.5	71.5	126.9	183.6	67.9	499.0	45.7
Had a break from trade	79.7	6.0	*	9.3	15.3	30.5	28.7	*	85.7	7.8
Never had a break	401.1	12.2	*	35.1	56.2	96.5	154.9	67.9	413.3	37.8

TABLE 3. TRADES QUALIFIED PERSONS: FIELD OF TRADE AND TRADE STATUS ('000)

Trade status	Metal	Electrical	Building	Furniture	Service	Food and drink	Printing and allied	Le-01000-00-00-00-00-00-00-00-00-00-00-00-	Footwear, clothing, textiles	Total
Trade qualified persons	294.8	150.3	220.1	30.4	67.2	65.6	44.9	132.8	86.9	1,092.9
Not in the labour force	42.4	15.0	29.8	8.5	28.6	11.8	8.5	13.4	59.2	217.3
In the labour force	252.3	135.2	190.3	21.9	38.6	53.7	36.5	119.4	27.7	875.6
Never worked as a tradesperson	20.4	5.2	5.0		_4.1	4.4	4.1	7.1	4.9	55.1
Worked as a tradesperson at some time										
since qualified	231.9	130.0	185.3	20.4	36.0	49.4	32.4	112.3	22.8	820.5
Unemployed	12.5	*	14.2		4.1_		*	4.8	*	39.7
Were looking for work in trade	10.1	*	11.5	*	*	*	*	*	*	28.9
Employed	219.4	127.1	171.1	19.5	34.6	47.5	32.4	107.5	21.6	780.8
Were not using trade skills	40.8	20.1	29.4	*	15.9	16.3	12.4	19.2	12.2	170.0
Were using some trade skills	37.3	28.8	17.9	*	*	4.3	*	15.0	*	111.7
Worked as a tradesperson	141.3	78.2	123.9	14.5	18.0	26.9	16.3	73.3	6.7	499.0
Had a break from trade	19.8	9.1	25.9	*	5.3	6.0	*	11.9	*	85.7
Never had a break	121.6	69.1	98.0	12.1	12.7	20.8	13.8	61.4	*	413.3

TABLE 4. TRADES QUALIFIED PERSONS: AGE AND TRADE STATUS ('000)

	Age at time of survey (years)								
Trade status	15-24	25-34	35-44	45-54	55-59	60-64	65+	Total	
Trades qualified persons	144.2	279.2	238.0	167.3	91.8	60.0	112.6	1,092.9	
Not in the labour force	4.1	16.0	15.4	18.8	24.6	32.2	106.1	217.3	
In the labour force	140.1	263.1	222.5	148.5	67.1	27.8	6.4	875.6	
Never worked as a tradesperson	8.9	16.4	16.3	8.8	*	*	*	55.1	
Worked as a tradesperson at some time since	:								
qualified	131.2	246.8	206.2	139.7	63.2	27.4	6.1	820.5	
Unemployed	9.5	11.1	8.0	5.2	5	5.7	*	39.7	
Were looking for work in trade	7.7	9.3	4.8	*	*	*	*	28.9	
Employed	121.7	235.7	198.2	134.5	60.3	24.7	5.8	780.8	
Were not using trade skills	13.0	48.0	45.7	35.4	16.4	8.0	*	170.0	
Were using some trade skills	5.4	29.4	39.5	24.5	9.1	*		111.7	
Worked as a tradesperson	103.3	158.2	113.1	74.6	34.8	13.1	*	499.0	
Had a break from trade		31.8	26.6	15.3	6.2	*	*	85.7	
Never had a break	100.3	126.5	86.5	59.3	28.6	10.8	*	413.3	

TABLE 5. TRADES QUALIFIED PERSONS: HOW TRADE QUALIFICATION WAS OBTAINED AND TRADE STATUS (' 000)

	Completed apprentice-	Other tra comple		
Trade status	ship in Australia	Australia	Overseas	Total
Trades qualified persons	1,010.1	36.5	46.3	1,092.9
Not in the labour force	199.9	9.8	7.5	217.3
In the labour force	810.2	26.7	38.7	875.6
Never worked as a tradesperson Worked as a tradesperson at some time since	49.4	*	*	55.1
qualified	760.8	24.2	35.5	820.5
Unemployed	36.1	*	*	39.7
Were looking for work in trade	26.0	*	*	28.9
Employed	724.8	22.8	33.3	780.8
Were not using trade skills	160.0	6.5	*	170.0
Were using some trade skills	102.8	*	5.3	111.7
Worked as a tradesperson	462.0	12.6	24.4	499.0
Had a break from trade	81.9	*	*	85.7
Never had a break	380.1	11.4	21.8	413.3

<sup>(</sup>a) Training in the metal or electrical fields for which the respondent had received recognition under the Tradesmen's Rights Regulation Act. See Explanatory notes paragraph 5.

TABLE 6. TRADES QUALIFIED PERSONS: COUNTRY OF BIRTH, PERIOD OF ARRIVAL IN AUSTRALIA AND TRADE STATUS (\* 000)

V	4			Born ove	erseas	e ti		
		Main		Period of arrival in Australia			Total born	
Trade status	Born in Australia	English speaking countries	Other countries	Before 1961	1961 to 1970	1971 to 1982	over- seas	Total
Trades qualified persons	926.5	90.0	76.4	90.4	52.1	24.0	166.4	1,092.9
Not in the labour force	191.4	18.3	7.6	21,1	*	*	25.9	217.3
In the labour force	735.1	71.7	68.8	69.2	48.6	22.7	140.5	875.6
Never worked as a tradesperson	46.2	4.1	4.8	4.6	*	*	9.0	55.1
Worked as a tradesperson at some							CONSIDER OF	
time since qualified	688.9	67.6	63.9	64.6	46.9	20.0	131.6	820.5
Unemployed	33.9	*	*	*	*	*	5.8	39.7
Were looking for work in								
trade	24.4	*	*	*	*	*	4.5	28.9
Employed	655.0	64.7	61.1	61.6	44.1	20.0	125.8	780.8
Were not using trade skills	151.1	7.4	11.5	14.1	*	*	18.9	170.0
Were using some trade skills	93.4	10.8	7.5	10.6	4.5	*	18.3	111.7
Worked as a tradesperson	410.5	46.4	42.1	36.9	35.8	15.9	88.5	499.0
Had a break from trade	74.1	6.7	4.9	7.4	*	*	11.6	85.7
Never had a break	336.4	39.7	37.2	29.5	32.3	15.1	76.9	413.3

TABLE 7. TRADES QUALIFIED PERSONS: STATES AND TERRITORIES AND TRADE STATUS (  $^{\prime}$  000)

Trade status	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N. T.	A. C. T.	Aust.
Trade qualified persons	405.8	262.6	188.8	90.1	92.4	31.2	7.5	14.5	1,092.9
Not in the labour force	81.6	60.5	35.2	16.8	15.8	6.8	*	*	217.3
In the labour force	324.2	202.1	153.7	73.3	76.6	24.4	7.2	14.1	875.6
Never worked as a tradesperson	21.4	12.3	9.8	3.8	4.6	1.6	*	*	55.1
Worked as a tradesperson at some									
time since qualified	302.8	189.8	143.9	69.6	72.0	22.8	6.9	12.7	820.5
Unemployed	15.0	7.4	6.0	3.9	3.7	1.6	*	*	39.7
Were looking for work in									
trade	12.3	4.5	3.9	3.3	3.2	1.5	*	*	28.9
Employed	287.8	182.4	137.9	65.7	68.3	21.2	5.5	12.0	780.8
Were not using trade skills	58.9	44.4	29.5	12.2	15.5	5.7	*	3.2	170.0
Were using some trade skills	42.4	30.2	16.0	10.7	8.1	2.0	*	*	111.7
Worked as a tradesperson	186.4	107.8	92.4	42.8	44.7	13.5	4.1	7.1	499.0
Had a break from trade	31.1	14.9	20.8	6.5	9.5	*	*	*	85.7
Never had a break	155.4	92.9	71.6	36.3	35.3	12.5	2.9	6.4	413.3

TABLE 8. TRADES QUALIFIED PERSONS: STATES AND TERRITORIES, FIELD OF TRADE AND TRADE STATUS ( $^{\prime}$  000)

Trade status	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.(a)
		V	METAL					
Trades qualified persons	112.0	65.2	47.9	32.0	27.2	5.8	3.4	294.8
Not in the labour force	18.6	9.3	4.8	6.3	2.3	* .	*	42.4
In the labour force Never worked as a tradesperson	93.4 10.4	55.9 4.9	43.1	25.7	25.0	4.7	3.4	252.3 20.4
Worked as a tradesperson at some			40.0	24.6	22.7			
time since qualified Unemployed	83.0	51.0	40.9	24.6	23.7	4.4	3.2	231.9 12.5
Were looking for work in trade	*	*	*	*	*	*	*	10.1
Employed Were not using trade skills	78.6 13.6	48.9 10.2	38.9 7.2	23.0 4.6	22.1 3.6	4.2	2.7	219.4 40.8
Were using some trade skills	15.0	8.6	4.9	4.1	3.9	*	*	37.3
Worked as a tradesperson Had a break from trade	50.0 7.3	30.0	26.7 4.0	14.3	14.5 3.9	2.4	2.2	141.3 19.8
Never had a break	42.7	28.0	22.7	12.5	10.6	2.3	2.0	121.6
			LECTRICAL					
Trades qualified persons	62.5	32.8	24.8	11.7	10.0	4.2	3.0	150.3
Not in the labour force In the labour force	7.3 55.1	30.4	23.2	9.8	8.9	3.8	2.7	15.0
Never worked as a tradesperson	*	*	*	*	*	*	*	135.2 5.2
Worked as a tradesperson at some time since qualified	52.1	29.6	22.3	9.8	8.7	3.8	2.5	130.0
Unemployed	*.	*	*	*	*	*	*	*
Were looking for work in trade Employed	51.0	28.6	21.9	9.6	8.4	3.8	2.5	127.1
Were not using trade skills	8.3	*	4.0	*	*	*	*	20.1
Were using some trade skills Worked as a tradesperson	12.8 30.0	7.8 17.5	4.1	2:1 5.7	6.1	2.9		28.8 78.2
Had a break from trade Never had a break	28.4	14.7	* 11.5	4.1	5.7	2.7	*	9.1 69.1
TOTAL MAD A STORM			BUILDING					
Trades qualified persons	87.0	44.4	44.1	12.2	17.7	8.4	4.3	220.1
Not in the labour force	12.4	6.1	6.0	*	3.4			29.8
In the labour force Never worked as a tradesperson Worked as a tradesperson at some	74.6	38.3	38.1	11.1	14.3	7.6	4.3	190.3 5.0
time since qualified	72.1	37.9	37.8	11.1	13.4	7.1	3.8	185.3
Unemployed Were looking for work in trade	5.4 4.8	*	*	*	*	*	*	14.2
Employed	66.7 9.8	35.0 5.5	36.2 6.7	9.8	12.4 3.8	6.0	3.8	171.1
Were not using trade skills Were using some trade skills	5.4	3.3	4.1	*	3.8	*	*	29.4 17.9
Worked as a tradesperson Had a break from trade	51.5 11.3	25.7 5.0	25.5 6.3	7.0	7.2	4.1	:	123.9
Never had a break	40.2	20.7	19.2	5.7	5.4	4.1	*	25.9 98.0
		MECHAN	ICAL, AUTOM	OTIVE				
Trades qualified persons	44.5	34.4	23.9	11.8	11.8	4.2	*	132.8
Not in the labour force In the labour force	5.0 39.4	4.6 29.8	22.2	* 11.8	10.8	3.0	*	13.4 119.4
Never worked as a tradesperson	*	29.6	*	*	*	*	*	7.1
Worked as a tradesperson at some time since qualified	37.0	28.7	19.8	11.3	10.3	2.8		112.3
Unemployed	*	*	*	*	*	*	*	4.8
Were looking for work in trade Employed	34.7	28.2	19.1	11.1	9.9	2.7	*	107.5
Were not using trade skills	*	6.2	3.8	2.0	*	*	*	19.2
Were using some trade skills Worked as a tradesperson	26.5	6.3 15.8	13.7	7.7	6.8	1.7	:	15.0 73.3
Had a break from trade	4.5	*	3.5	*	*	*	*	11.9
Never had a break	22.0	14.4	10.1	7.3	5.4	*	*	61.4
T. J	00.0	95.0	OTHER(b)	22.4	25.7	9.5	2.2	205.0
Trades qualified persons	99.9	85.9	48.2	22.4	25.7	8.5	3.3	295.0
Not in the labour force In the labour force	38.2 61.6	38.2 47.7	21.1	7.4 15.0	8.1 17.6	3.2 5.3	3.1	116.6 178.3
Never worked as a tradesperson	*	5.1	4.0	2.1	*	*	*	17.4
Worked as a tradesperson at some time since qualified	58.6	42.6	23.1	12.9	15.8	4.7	2.6	160.9
Unemployed	*	*	*	*	*	*	*	5.3
Were looking for work in trade Employed	56.8	41.7	21.8	12.2	15.6	4.6	2.4	155.6
Were not using trade skills	23.0	19.1	7.7	2.5	5.2	1.9	*	60.6
Were using some trade skills Worked as a tradesperson	5.3 28.4	18.8	12.7	8.2	10.1	2.4	*	12.7 82.3
Had a break from trade	6.5	*	4.7	*	*	*	*	19.1
Never had a break	21.9	15.0	8.0	6.7	8.2	2.0	*	63.2

<sup>(</sup>a) Includes the Northern Territory. (b) Comprises Furniture; Service; Food and drink; Printing and allied; and Footwear, clothing, textiles. For total see Table 7.

# TABLE 9. TRADES QUALIFIED PERSONS WHO HAD NEVER WORKED AS A TRADESPERSON SINCE QUALIFYING: YEAR QUALIFIED AND REASON NEVER WORKED AS A TRADESPERSON (\*) 000)

	Year in which qualified									
Reason never worked as a tradesperson	Before 1960	1960 to 1969	1970 to 1979	1980 to 1982	Total					
Total	14.2	18.1	14.8	8.1	55.1					
Sacked on completion of training Poor pay, security, working conditions Promoted	* *	6.3	4.4	*	4.0 15.5 8.4					
Family, personal, health Other reasons	4.4	5.7		4.3 6.5	10.0 17.3					

TABLE 10. EMPLOYED TRADES QUALIFIED PERSONS: LEVEL OF USE OF TRADE SKILLS IN MAIN JOB OR BUSINESS AND AGE, FIELD OF TRADE, OCCUPATION, INDUSTRY, EMPLOYMENT SECTOR AND FULL-TIME PART-TIME STATUS (\*000)

	I	n own business		3.4	Empl	loyee			Total	
	Were not using trade skills	Were using trade skills	Total	Were not using trade skills	Were using some trade skills	Worked as a trades- person	Total	Were not using trade skills	Worked as a trades- person	Total(a)
Total	40.3	145.8	186.0	129.8	111.7	353.2	594.8	170.0	499.0	780.8
Age at time of survey (years)										
15-24	*	11.9	12.9	12.0	5.4	91.4	108.9	13.0	103.3	121.7
25-34	12.1	47.2	59.3	35.9	29.4	111.1	176.3	48.0	158.2	235.7
35-44	11.6	43.0	54.7	34.0	39.5	70.0	143.5	45.7	113.1	198.2
45-54	7.3	28.0	35.3	28.1	24.5	46.6	99.2	35.4	74.6	134.5
55 and over	8.1	15.7	23.9	19.8	13.0	34.0	66.8	27.9	49.8	90.7
Field of trade-										
Metal	9.1	19.5	28.6	31.6	37.3	121.9	190.8	40.8	141.3	219.4
Electrical	6.0	18.0	24.0	14.1	28.8	60.2	103.1	20.1	78.2	127.1
Building	7.9	66.6	74.5	21.5	17.9	57.3	96.6	29.4	123.9	171.1
Furniture	*	4.1	4.3	*	*	10.4	15.2	*	14.5	19.5
Service	5.0	7.2	12.3	10.9	*	10.7	22.4	15.9	18.0	34.6
Food and drink	*	5.1	9.0	12.3	4.3	21.8	38.5	16.3	26.9	47.5
Printing and allied	*	*	5.1	10.1	*	13.4	27.3	12.4	16.3	32.4
Mechanical automotive	4.3	20.8	25.1	14.9	15.0	52.5	82.4	19.2	73.3	107.5
Footwear, clothing, textiles	*	*	*	10.7	*	5.1	18.5	12.2	6.7	21.6
Occupation—										
Professional, technical									100	
etc.	*	*	*	10.9	20.3	12.5	43.8	11.6	14.9	46.8
Administrative, executive										
and managerial	7.6	22.8	30.4	16.0	17.8	7.7	41.5	23.6	30.5	71.9
Clerical	*	*	*	13.1	*	*	18.7	15.0	*	20.6
Sales	4.0	*	6.7	10.4	9.9	*	21.9	14.4	4.4	28.7
Farmers, fishermen,					*				*	17.4
timber-getters etc.	5.5	*	8.5	5.7	*	*	7.9	11.2	*	16.4
Miners, quarrymen etc.	*	*	*	*	•	•	4.9	•		5.2
Transport and		*		12.2	*	*	19.5	22.8	4.8	31.0
communication	9.5	•	11.5	13.3	-	•	19.3	22.8	4.0	31.0
Tradesmen, production										
process workers and	0.5	107.5	116.0	36.6	51.3	307.7	395.6	45.0	415.2	511.6
labourers n.e.c.	8.5	107.5	110.0	30.0	31.3	307.7	373.0	45.0	415.2	311.0
Service, sport and	*	5.4	7.7	20.2	*	17.3	40.9	22.5	22.7	48.6
recreation		J. <del>4</del>	7.7	20.2		17.3	40.7	22.3	22.7	10.0
Industry—										
Agriculture, forestry,					*	*		0.0	4.4	12.0
fishing and hunting	5.4	*	7.7	*			6.1	8.2	4.4	13.9
Mining	*		22.0	5.8	4.0	9.2	19.0	6.1	9.7 154.2	19.8 217.2
Manufacturing	*	20.2	22.9	25.9	34.5 8.9	134.0 22.6	194.3 36.9	28.6	22.6	36.9
Electricity, gas and water		740	01.1	5.4		48.6	62.5	15.1	122.8	143.6
Construction	6.9	74.2	81.1	8.2	5.7 18.5	57.4	94.8	31.1	92.6	143.0
Wholesale and retail trade	12.2	35.2	47.4	18.8 11.7	9.3	22.9	43.9	20.0	24.1	53.4
Transport and storage	8.3		9.4	*	4.7	8.5	16.6	20.0	8.5	16.6
Communication	-				4.7	0.5	10.0		0.5	10.0
Finance, property and	*	5.8	7.5	6.4	*	4.7	15.0	8.2	10.5	22.5
business services		3.0	1.3	0.4		7.7	15.0	0.2	10.5	22.3
Public administration	*	*	*	13.1	8.1	16.1	37.3	13.1	16.1	37.3
and defence Community services	*	*	*	19.7	12.3	14.4	46.3	20.1	14.6	47.0
Recreation, personal and	Ţ.			17.7	12.3	• • •	.0.5	20.1		.,,,
other services	*	6.3	8.5	8.6	*	12.7	22.0	10.8	19.0	30.5
Employment sector—										
Government	*	*	*	46.4	40.8	97.1	184.3	46.8	97.2	184.9
Non-government	39.8	145.6	185.5	83.4	71.0	256.1	410.5	123.2	401.8	595.9
Full-time part-time status—										
Full-time workers	33.1	134.9	168.0	117.9	109.1	346.1	573.1	151.0	481.0	741.1
Part-time workers	7.2	10.9	18.0	11.9	*	7.2	21.7	19.1	18.0	39.7

<sup>(</sup>a) Includes employees who were using some skills.

TABLE 11. AVERAGE ANNUAL INCOME OF EMPLOYED TRADES QUALIFIED PERSONS: LEVEL OF USE OF TRADE SKILLS IN MAIN JOB OR BUSINESS AND AGE, FIELD OF TRADE, OCCUPATION, INDUSTRY, EMPLOYMENT SECTOR, FULL-TIME PART-TIME STATUS (\$)

	. 1	n own business			Empl	oyee			Total	
	Were not using trade skills	Were using trade skills	Total	Were not using trade skills	Were using some trade skills	Worked as a trades- person	Total	Were not using trade skills	Worked as a trades- person	Total(a)
Total	10,919	12,219	11,938	16,323	20,463	16,589	17,265	15,044	15,309	15,996
Age at time of survey (years)										
15-24	*	10,493	10,768	12,493	13,953	14,529	14,273	12,607	14,068	13,904
25-34	8,977	12,180	11,509	15,836	19,265	16,765	16,994	14,101	15,408	15,625
35-44	13,579	12,567	12,776	17,298	21,417	17,719	18,647	16,361	15,737	17,018
45-54	11,420	11,949	11,839	18,983	21,954	18,238	19,371	17,392	15,871	17,382
55 and over	9,339	13,135	11,841	14,199	20,187	16,941	16,763	12,782	15,737	15,468
Field of trade—										
Metal	11,711	12,430	12,200	16,968	21,608	17,684	18,345	15,772	16,949	17,534
Electrical	14,317	17,115	16,408	18,892	21,807	18,061	19,233	17,525	17,843	18,699
Building	10,251	12,083	11,897	17,312	19,555	16,107	17,012	15,493	13,951	14,801
Furniture	*	9,121	8,949	*	*	14,753	15,267	*	13,173	13,886
Service	10,016	6,899	8,204	12,875	*	8,511	11,044	11,918	7,839	9,995
Food and drink	*	12,580	9,767	15,616	17,648	14,947	15,467	13,320	14,497	14,382
Printing and allied	*	*	11,622	15,592	*	18,345	17,156	14,100	17,738	16,277
Mechanical automotive	13,658	10,158	10,768	16,918	19,655	15,505	16,513	16,191	14,008	15,188
	13,036	10,136	10,700	12,482	19,033	11,680	12,441	12,126	11,785	12,215
Footwear, clothing, textiles				12,402		11,000	12,441	12,120	11,763	12,213
Occupation—				10.000	21.070	10 (20	20.207	17.574	20.400	20, 402
Professional, technical etc. Administrative, executive	*	*	*	18,202	21,970	19,628	20,387	17,574	20,609	20,482
and managerial	14,723	14,706	14,710	22,069	21,318	18,707	21,140	19,701	15,707	18,442
Clerical	14,723	*	14,710	15,314	*	*	15,988	14,589	*	15,396
	12 272	*	11,079	13,981	17,487	*	15,721	13,497	11,715	14,618
Sales	12,272		11,079	13,961	17,407		13,721	13,497	11,/13	14,016
Farmers, fishermen,	10.262	*	10.252	10.002		*	11,041	10,131	*	10,633
timber-getters etc.	10,262	*	10,252	10,003		*	22,565	10,131	*	21,824
Miners, quarrymen etc.							22,303			21,024
Transport and communication	12,209	*	13,009	15,465	*	*	17,471	14,151	17,451	15,866
Tradesmen, production	12,209		13,009	13,403			17,471	14,151	17,451	13,000
process workers and										
labourers n.e.c.	6,878	11,699	11,345	15,250	20,228	16,631	16,973	13,678	15,350	15,695
Service, sport and recreation	*	6,883	7,634	16,035	*	12,204	14,670	15,318	10,938	13,553
Industry— Agriculture, forestry,										
fishing and hunting	8,903	*	9,766	*	*	*	13,433	10,352	12,850	11,388
Mining and nunting	*	*	*	21,002	27,033	24,964	24,149	20,489	24,389	23,667
Manufacturing	*	14,507	14,174	15,330	19,684	17,249	17,428	14,984	16,884	17,081
Electricity, gas and		14,507	1 1,17 1	10,000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	17,217	,.20	.,,,,,,,,,,		,
water	*	*	*	16,996	24,699	17,678	19,271	16,996	17,678	19,271
Construction	10,784	12,158	12,041	15,817	20,356	15,953	16,341	13,521	13,657	13,911
Wholesale and retail	10,70	12,100	12,011	10,017	20,000	,	,-	,-		
trade	11,182	11,262	11,241	16,912	19,694	14,153	15,787	14,628	13,060	14,275
Transport and storage	11,751	*	11,234	17,624	21,752	19,077	19,259	15,269	18,541	17,903
Communication	*		*	*	20,717	18,827	18,715	*	18,827	18,715
Finance, property and					20,717	10,027	,		,	,
business services	*	17,679	17,266	18,276	*	15,727	17,419	17,768	16,800	17,368
Public administration		17,077	17,200	10,270		15,727	.,,.,	17,700	10,000	17,500
and defence	*	*	*	15,996	19,725	17,303	17,390	15,996	17,303	17,390
Community services	*	*	*	17,113	20,026	15,404	17,359	16,829	15,270	17,186
Recreation, personal				17,113	20,020	13,404	17,557	10,027	13,270	17,100
and other services	*	6,767	7,074	11,791	*	9,557	10,653	10,999	8,600	9,640
E										
Employment sector—	*	*	*	17 620	22.050	17 444	18,515	17,521	17,432	18,481
Government				17,620	22,059	17,444				
Non-government	10,956	12,223	11,951	15,614	19,543	16,258	16,700	14,116	14,787	15,219
Full-time part-time status—										
Full-time workers	11,785		12,272			16,746	17,454		15,523	16,281
Part-time workers	6,971	10,113	8,865	11,367	*	8,562	12,207	9,717	9,523	10,671

<sup>(</sup>a) Includes employees who were using some trade skills.

TABLE 12. EMPLOYED TRADES QUALIFIED PERSONS WHO WERE NOT USING TRADE SKILLS: REASON FIRST LEFT TRADE AND FIELD OF TRADE, TIME IN TRADE, STATUS OF WORKER, FULL-TIME PART-TIME STATUS, YEAR FIRST LEFT TRADE (\*000)

	2 2	2		Reason	first left trade		Early words		
	Laid off	Seeking better pay/job security	Seeking better working conditions	Promoted	Dissatisfied with job, wanted a change	Family, personal, health reasons	Decline of trade	Other	Total
Total	9.3	49.0	12.2	12.9	40.6	24.8	11.5	9.8	170.0
Field of trade— Metal Electrical Building Mechanical, automotive Other(a)	} 4.1 { * 4.4	14.9 6.4 6.5 9.0 12.1	} 5.6 *	5.9	8.1 5.4 7.1 *	<pre></pre>	{ * * 4.7 * 4.5	} 6.4 {	40.8 20.1 29.4 19.2 60.6
Time in trade before first le Left before 1950 Less than 5 years 5 and under 10 years 10 and under 15 years 15 years or longer	eft—  *  4.4 { 4.9 {	* 24.2 11.8 6.0 5.0	* 6.4 * *	* 4.4 } 5.1	* 16.7 11.3 4.0 7.2	10.7 } 7.4	4.9 * * 4.6	* 5.5 * *	9.2 75.6 37.8 18.8 28.6
Status of worker in main jo In own business Employee	ob— * 6.8	8.7 40.3	4.2 8.0	* 12.3	12.4 28.2	5.0 19.8	7.7	6.9	40.3 129.8
Full-time part-time status— Full-time workers Part-time workers	8.1	45.0 4.0	10.9	12.6	37.7	16.2 8.6	10.9	9.6	151.0 19.1
Year first left trade— Before 1960 1960 to 1964 1965 to 1969 1970 to 1974 1975 to 1979 1980 to 1982	* * * * 4.5	5.4 5.4 6.0 13.1 12.0 7.1	} 4.0 * * 4.0	{	$ \begin{cases} 4.7 \\ 6.1 \\ 5.1 \\ 8.1 \\ 11.8 \\ 4.8 \end{cases} $	7.1 9.5 6.6 *	4.4 4.3 *	$\left\{ \begin{array}{c} \\ \\ \\ \end{array} \right\} \begin{array}{c} 5.2 \end{array} \left\{ \begin{array}{c} \\ \\ \\ \end{array} \right. $	27.7 19.8 20.8 30.8 44.8 26.2

<sup>(</sup>a) Includes furniture; service; food and drink; printing; footwear; clothing and textiles.

TABLE 13. TRADES QUALIFIED EMPLOYEES WHO WERE USING SOME TRADE SKILLS IN THEIR MAIN JOB: REASON FIRST LEFT TRADE AND FIELD OF TRADE, TIME IN TRADE, FULL-TIME PART-TIME STATUS, YEAR FIRST LEFT TRADE (\*000)

				Reason	first left trade				
	Laid off	Seeking better pay/job security	Seeking better working conditions	Promoted	Dissatisfied with job, wanted a change	Family/ personal/ health	Decline of trade	Other	Total
Total	4.4	28.7	7.8	42.1	16.8	5.2	*	4.0	111.7
Field of trade— Metal Electrical Building Mechanical, automotive Other(a)	* * *	8.8 7.9 4.4 *	} 6.2 * *	{ 16.2 11.1 5.7 7.0	4.9 } 6.2 } 5.8	( ) (	* * *	* * *	37.3 28.8 17.9 15.0 12.7
Time in trade before first le Left before 1950 Less than 5 years 5 and under 10 years 10 and under 15 years 15 years or longer	ft— * * * * *	9.8 10.0 *	} 4.8 *	* 12.3 11.1 9.0 9.8	9.0 } 7.6	{ } 4.1 {	* *	* * *	* 40.6 30.9 14.2 23.4
Full-time part-time status— Full-time workers Part-time workers	4.4	27.8	7.8	41.3	16.8	5.2	*	5.7*	109.1
Year first left trade— Before 1960 1960 to 1964 1965 to 1969 1970 to 1974 1975 to 1979 1980 to 1982	* * *	} 6.1 < 6.5 6.1 6.9 *	{ * * * * * * * * * * * * * * * * * * *	4.7 4.8 13.9 10.0 5.1	} 4.9 4.8 4.4 *	{ * * * * * * * * * * * * * * * * * * *	* * * * * * *	* * * *	11.8 9.2 14.8 29.2 30.2 16.5

<sup>(</sup>a) Includes furniture; service; food and drink; printing; footwear, clothing and textiles.

TABLE 14. EMPLOYED TRADES QUALIFIED PERSONS WHO WORKED AS A TRADESPERSON AND HAD A BREAK OF A YEAR OR LONGER FROM THEIR TRADE: REASON HAD FIRST BREAK FROM TRADE AND FIELD OF TRADE, TIME IN TRADE, YEAR FIRST LEFT TRADE, STATUS OF WORKER, FULL-TIME PART-TIME STATUS (\*000)

		Reason for first break from trade								
	Laid off	Seeking better pay/job security	Seeking better working conditions	Promoted	Dissatisfied with job, wanted a change	Family/ personal/ health	Decline of trade	Other	Total	
Total	*	19.0	*	*	28.6	14.9	5.8	8.4	85.7	
Field of trade—										
Metal	*	6.5	*	*	6.6	)	(	*	19.8	
Electrical	*	*	*	*	*	7.5	4.4	*	9.1	
Building Mechanical,	*	4.5	*	*	8.2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7.7	4.8	25.9	
automotive	*	4.8	*	*	4.2	*	*	*	11.9	
Other(a)	*	*	*	*	7.3	6.0	*	*	19.1	
Time in trade before first le	ft—									
Left before 1950	*	*	*	*	*	*	*	*	*	
Less than 5 years	*	10.2	*	*	17.0	6.9	) (	6.8	50.5	
5 and under 10 years	*		*	*	7.2	) (	> 5.5 }	*	16.1	
10 and under 15 years	*	6.4	*	*	} 4.3	{ } 7.0 }		*	8.4	
15 years or longer	*	*	*	*	} 4.3	{ }	*	*	6.8	
Year first left trade—										
Before 1960	*	4.3	*	*	5.0	7105	*	*	15.3	
1960 to 1964	*	} 5.8 {	*	*	*	} 4.0 {	*	*	8.2	
1965 to 1969	*	} 3.8 {	*	冰	4.2	*	*	4.4	13.7	
1970 to 1974	*	4.1	*	*	6.2	4.9	*	*	18.9	
1975 to 1979	*	4.1	*	*	8.7	} 5.3	115	*	21.3	
1980 to 1982	*	*	*	*	*	3.3	4.4 {	*	8.2	
Status of worker in main jo										
In own business	*	10.9		4.2	13.1	5.4	*	4.0	41.6	
Employee	*	8.1	*	*	15.5	9.5	*	4.3	44.1	
Full-time part-time status—										
Full-time workers	*	17.9	*	*	27.4	11.1	4.5	8.2	77.1	
Part-time workers	*	*	*	*	*	*	*	*	8.6	

<sup>(</sup>a) Includes furniture; service; food and drink; printing; footwear, clothing and textiles.

TABLE 15. EMPLOYED TRADES QUALIFIED PERSONS WHO WORKED AS A TRADESPERSON AND HAD NEVER HAD A BREAK FROM THEIR TRADE: FIELD OF TRADE, TIME SINCE QUALIFIED AND AGE AT TIME OF SURVEY (\*000)

			Field of tre	ade		T			
Age at time of survey (years)—	Metal	Electrical	Building	Mechanical, Automotive	Other(a)	Less than 5 years	5 and under 10 years	10 years or more	Total
15-24	24.2	15.5	17.3	21.7	21.4	90.5	9.8		100.3
25-34	33.4	27.7	30.3	20.0	15.0	14.8	61.7	50.0	126.5
35-44	26.4	14.2	23.1	12.1	10.7	1	*	81.9	86.5
45-54	18.7	8.5	18.9	4.0	9.2	2 4.4	*	56.9	59.3
55 and over	18.8	*	8.4	*	7.0	J	*	39.6	40.7
Total	121.6	69.1	98.0	61.4	63.2	109.7	75.3	228.3	413.3

<sup>(</sup>a) Includes furniture; service; food and drink; printing; footwear, clothing and textile.

TABLE 16. EMPLOYED TRADES QUALIFIED PERSONS WHO WORKED AS A TRADESPERSON AND HAD NEVER HAD A BREAK FROM THEIR TRADE: FIELD OF TRADE AND TIME IN TRADE, INDUSTRY, EMPLOYMENT SECTOR, STATUS OF WORKER, FULL-TIME PART-TIME STATUS ('000)

		Field of trade								
	Metal	Electrical	Building	Furniture	Service	Food and drink	Printing and allied	Mechanical, automotive	Total(a)	
Total	121.6	69.1	98.0	12.1	12.7	20.8	13.8	61.4	413.3	
Time in trade—										
Less than 5 years	30.2	19.2	19.1	4.5	4.7	4.8	4.2	21.4	109.7	
5 and under 10 years	24.0	15.6	15.2	} 4.2	5.6	5.6	<b>*</b>	9.9	75.3	
10 and under 15 years	17.1	13.0	16.8	} 4.2	3.0	3.6	*	10.8	66.3	
15 years or longer	50.3	21.4	46.9	*	*	10.4	5.8	19.4	162.0	
Industry—										
Agriculture, forestry,										
fishing and hunting	*	*	*	*	*	*	*	*	*	
Mining	-	5.1	*	*	*	*	*	*	8.1	
Manufacturing	76.3	15.1	14.3	7.3	*	*	13.3	5.8	137.6	
Electricity, gas and										
water	4.9	11.0	*	*	*	*	*	*	19.8	
Construction	7.0	15.9	67.8	*	*	*	*	*	95.7	
Wholesale and retail										
trade	9.3	8.5		4.4	*	14.4	*	34.3	74.2	
Transport and storage	9.4	-	5.6	*	*	*	*	6.3	21.3	
Communication	*	7.4	*	*	*	*	*	*	8.3	
Finance, property and										
business services		4.4_		*	*	*	*	*	5.2	
Public administration										
and defence	*	4.8	*	*	*	*	*	*	14.9	
Community services		4.3		4.3	*	*	*	*	11.8	
Recreation, personal and										
other services	*	*	*	*	9.4	*	*	*	13.6	
Employment sector—										
Government	28.7	29.6	14.7	*	*	*	*	10.9	87.3	
Non-government	92.9	39.5	83.4	9.9	12.5	20.4	13.3	50.5	326.0	
Status of worker in main job—										
In own business	11.2	14.0	48.2	*	6.2		5.5	14.3	104.1	
Employee	110.4	55.1	49.9	9.1	6.5	17.8	11.3	47.1	309.2	
Full-time part-time status—								25		
Full-time workers	119.1	68.6	96.3	11.9	10.0	20.1	13.8	60.6	403.9	
Part-time workers		4.7		*	*	*	*	*	9.5	

<sup>(</sup>a) Includes footwear, clothing and textiles.

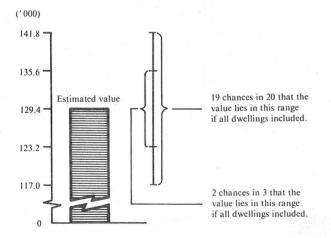
### TECHNICAL NOTE

### **Estimation procedure**

The estimates are derived from the population survey by use of a ratio estimation procedure which ensures that the estimates conform to an independently estimated distribution of the population for each capital city and remainder of State by age and sex, rather than to the corresponding distribution within the sample itself.

# Reliability of the estimates

- Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability; that is, they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure of the likely difference is the relative standard error, which is obtained by expressing the standard error as a percentage of the estimate.
- 3. Space does not allow for the separate indication of the standard errors of all estimates in this publication. A table of standard errors for general application is given on the following page. Since they are averages based on calculations for a limited number of past surveys over a wide range of labour force characteristics, these figures will not give a precise measure of the standard error of a particular estimate but they will provide an indication of its magnitude.
- 4. An example of the calculation and the use of standard errors in relation to estimates of persons is as follows. From Table 2 on page 6, the estimated number of females who, at the time of the survey, were trades qualified is 129,400. Since this estimate is between 100,000 and 200,000 in the standard error table, the standard error for Australia will be between 5,700 and 7,400 and can be approximated as 6,200 (rounded to the nearest 100). Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall in the range 123,200 to 135,600 and about nineteen chances in twenty that the value will fall within the range 117,000 to 141,800. This example is illustrated in the following diagram.



- 5. The standard error of an estimate of mean income can be calculated as in the following example. Table 10 shows that the estimated number of employees who worked as a tradesperson was 353,200 and that their estimated mean gross annual income was \$16,589. From Table B it can be seen that the relative standard error of the mean annual income of 353,200 employees who worked as a tradesperson is approximately 2.4, giving a standard error for the mean annual income of \$398. Thus there are about two chances in three that the mean annual income would be between \$16,191 and \$16,987 and about nineteen chances in twenty that it would be between \$15,793 and \$17,385.
- 6. As can be seen from the standard error table, the smaller the estimate the higher is the relative standard error. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the tables in this publication, estimates with relative standard errors greater than 33 per cent have not been published. Although figures for these small estimates can in some cases be derived by subtraction, they should not be regarded as reliable. Users should treat with care estimates with relative standard errors between 25 per cent and 33 per cent.
- 7. Proportions and percentages formed from the ratio of two estimates are also subject to sampling error. The size of the error depends on the accuracy of both the numerator and the denominator. The formula for the relative standard error (RSE) of a proportion is given below:

RSE 
$$(x/y) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

- 8. Considering the example from paragrpah 4, the 129,400 females represent 11.8 per cent of the 1,092,900 trades qualified persons. The standard error of 1,092,900 is approximately 13,300 so the relative standard error is 1.2 per cent. The relative standard error for 129,400 is 4.8 per cent. Applying the above formula, the relative standard error of the proportion is  $\sqrt{(4.8)^2 (1.2)^2}$  or 4.6 per cent, giving a standard error for the proportion (11.8 per cent) of 0.5 percentage points. Therefore, there are about two chances in three that the proportion of females who were trades qualified is between 11.3 per cent and 12.3 per cent and nineteen chances in twenty the proportion is within the range 10.8 per cent to 12.8 per cent.
- 9. Published figures may also be used to estimate the difference between two survey estimates (of numbers or percentages). Such a figure is itself an estimate and is therefore subject to sampling error. The sampling error of the difference between two estimates depends on their standard errors and the relationship (correlation) between them. An approximate standard error (SE) of the difference between two estimates (x-y) may be calculated by the following formula:

SE (x-y) = 
$$\sqrt{[SE(x)]^2 + [SE(y)]^2}$$

While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations it is expected to provide a good approximation for all differences likely to be of interest in this publication. 10. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents

and errors made in the coding and processing of data. Inaccuracies of this kind are referred to as the *non-sampling error*, and they may occur in any enumeration, whether it be a full count or only a sample.

TABLE A: STANDARD ERRORS OF ESTIMATES

									Au	stralia
Size of estimate	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.		Relative standard error (per cent)
1,000										
1,500					- 1	440				
2,000				670	670	500	670	640		
2,500				740	740	550	740	690		
3,000			1,000	800	800	590	800	740		
3,500			1,100	850	860	630	860	780		
4,000			1,100	900	910	660	900	820	1,300	33.3
4,500	1,500	1,500	1,200	950	960	690	950	850	1,400	31.4
5,000	1,600	1,500	1,200	990	1,000	720	990	880	1,500	29.8
6,000	1,700	1,700	1,400	1,100	1,100	770	1,100	940	1,600	27.1
10,000	2,200	2,100	1,700	1,300	1,300	930	1,300	1,100	2,100	20.8
20,000	2,900	2,800	2,200	1,700	1,700	1,200	1,700	1,300	2,900	14.3
50,000	4,300	3,900	3,200	2,400	2,400	1,500	2,400	1,600	4,300	8.5
100,000	5,600	5,000	4,100	3,000	3,000	1,900		1,900	5,700	5.7
200,000	7,300	6,300	5,200	3,700	3,700	2,200			7,400	3.7
300,000	8,400	7,200	5,900	4,200	4,200				8,600	2.9
500,000	9,900	8,400	7,000	4,800	4,800				10,000	2.1
1,000,000	12,000	10,000	8,600						13,000	1.3
2,000,000	15,000	12,000							16,000	0.8
5,000,000	100 A 100 A								21,000	0.4

Estimates below the levels indicated have not been published, see paragraph 5.

TABLE B: RELATIVE STANDARD ERRORS OF MEAN ANNUAL INCOME

Size of estimated population (Persons)	Relative standard error of mean annual income (per cent of income)
1,700	34.5
2,000	31.8
3,000	26.0
5,000	20.1
10,000	14.2
20,000	10.1
50,000	6.4
100,000	4.5
200,000	3.2
300,000	2.6
500,000	2.0
1,000,000	1.4
5,000,000	0.6
10,000,000	0.4