

A Profile of Low Wage Employees

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PREFACE

A Note On The Data Used

Before reading this report it is important to note the extreme limitations in the available data and literature for preparing a profile of low wage employees. Much data on wages, employment and consumption patterns reports averages. Such material is useful for gaining insights into measures of central tendency but it is of limited value when the key issue of interest is those workers who are below average. By definition, data on the nature and extent of dispersion in earnings is needed when studying such workers. Data on the occupational and industry characteristics of wage dispersion is often not released in published form by the ABS, hence much of the material on which we rely is derived from unpublished ABS survey results. An additional problem is that labour statistics usually report on *either* the employment *or* the wages side of the labour market. It is difficult finding data that directly links, for example, the number of workers employed in a particular occupation working at a particular wage rate. This paper has resolved this problem by drawing heavily on unit record data produced by the 1993 Australian Bureau of Statistics Survey of Training and Education (STE). It provides very detailed information on just over 20,000 workers including their industry, occupational, earnings and hours characteristics. This data source is particularly useful for industries where the majority of the workforce is employed full-time. For industries such as child care and hospitality where there are high levels of part-time employment the STE estimates of hourly earnings are less reliable. Consequently, more detailed information on the earnings and living standards of these employees is being generated by an original survey of workers in these industries. The survey is being conducted jointly by the ALHMU and ACIRRT.

Publicly available data on expenditure also suffers from a number of limitations. As it is currently released by the ABS, it is primarily of use for examining issues of income distribution. It categorises people by their level of income irrespective of the source of income and does not control for wealth effects, such as home ownership. We have, therefore, used unit record data to control for these issues and generate data of most relevance to the Living Wage case. To date we have only had access to the 1989/90 Household Expenditure Survey.

Considerable care should, therefore, be exercised when quoting the statistics cited in this working paper. In every case the notes and the population descriptions provided at the bottom of each table should be read closely to assist with correct interpretation of the statistics. Where appropriate, we have provided an indication of the sample size on which some of the estimates are based. This indicates to the reader the degree of precision which attaches to those estimates. Where the sample sizes are large, one can be quite confident in the precision of the estimates. Where they are small, one needs to exercise caution.

INTRODUCTION

In June 1996 the ACTU lodged a claim for a 'living wage'. The ultimate objective of this claim is to ensure the minimum award rate of pay is \$12.00 per hour (for ordinary hours of work) or \$456.00 per week. As the first stage of the process the ACTU has lodged a claim for \$10.00 per hour or \$380.00 per week as the minimum applying in a range of key Federal awards. These include the Federal Metal, Clothing and Hospitality Industry Awards, as well as the Award covering the ACT Child Care Industry. This document has been prepared as a source document to help those concerned with assessing the need for and likely impact of the claim, especially in metal and engineering (hereafter metals) and textiles, clothing and footwear workers (hereafter TCF) industries. Material relevant to clerks and cleaners operating in all industries is also provided to assist assessment of the likely impact of the claim for employees working in these occupations across a range of industries.

This paper contains material relevant to the following issues:

- how many employees are likely to be affected by the claim;
- the key characteristics of these employees;
- the nature of their current expenditure patterns; and
- how they would use any additional money earned as a result of the claim..

Our approach has been to draw on material produced by the Australian Bureau of Statistics. Both published and unpublished material has been used to examine the characteristics of low paid employees. This has involved working down from an economy-wide perspective to an analysis at the level of manufacturing workers and then an analysis of clerical and cleaning occupations. Having examined the nature and extent of low paid work, consideration is then given to the expenditure patterns of households that depend on low wages as their primary source of income.

LOW WAGE WORKERS: AN OVERVIEW

The Australian Bureaus of Statistics (ABS) Survey of Training and Education (STE) can be used to provide an overview of the prevalence and characteristics of low paid employees. These are summarised in Table 1.

Table 1: Number and Proportion of Low Paid Adult Employees Working 16 Hours a Week or More: Australia, 1993¹

<i>Hourly Wage \$²</i>	<i>< \$9</i>	<i>9.01-10.50</i>	<i>10.51-12.00</i>	<i>12.00+</i>	<i>Total</i>
No. of Employees	575,349	701,633	664,512	2,704,131	4,645,625
% of Employees	12.4	15.1	14.3	58.2	100
% of Males	10.1	13.4	12.6	63.9	100
% of Females	15.6	17.4	16.7	50.3	100

Source: unpublished data from ABS, 1993, Survey of Training and Education, confidentialised unit record file (CURF).

Population: Adult employees working 16 hours a week or more.

Notes:

1. For guidance on how to interpret the significance of these estimates see 'A note on the data.'
2. Estimates of hourly wage rates have been generated by taking the mid points in reports of hours worked eg workers reported as falling in the 35-40 bracket were assumed to work on average 37.5 hours per week. Note that for employees working 15 hours a week or less, reports of hours worked were based on excessively large intervals and were therefore excluded from these calculations. Estimate of overtime were based on the assumption that overtime was paid at a penalty of 1.5 times the normal hourly rate.

The data has been organised around \$9.00 and \$10.50 cut off points because the survey is now three years old. We have been conservative and assumed \$9.00 in 1993 is equivalent to \$10.00 now. If any thing this will mean the assessment of the effects of an increase in the minimum award wage is *understated* in the following analysis. As Table 1 indicates about 12% of the workforce could be affected by Stage 1 of the Living Wage claim and a further 15% by the full claim. The greater percentage of women standing to benefit from the claim is also apparent in the Table. Around 15% are potentially affected by the first stage and one in three by the full claim.

STE data can also be used to identify the industries with a high proportion of low paid employees. These are reported in Table 2. It reveals that if the first stage of the claim is successful at least 25% of employees in the following industries are likely to be affected:

- private households employing staff (81% of employees likely to be affected)
- agriculture (48%)
- personal services (34.1%)
- clothing and footwear (29.4%)
- restaurants, hotels and clubs (27.4%)
- welfare & religious institutions (27.5%)
- retail trade (23.7%)

Table 2: Proportion of Low Wage Employees by Industry, Australia, 1993

Industry	Wages Grouped				Total
	\$9 & below	\$9.01-10.50	\$10.51-12.00	Above \$12.00	
Agriculture etc	48.0%	20.5%	6.9%	24.5%	100.0%
Mining	2.6%	9.1%	6.5%	81.8%	100.0%
Food, Beverages & Tobacco	15.4%	19.6%	14.8%	50.1%	100.0%
Textiles	20.5%	25.8%	11.4%	42.3%	100.0%
Clothing & Footwear	29.3%	44.0%	18.3%	8.4%	100.0%
Wood, Wood Products & Furniture	12.6%	37.0%	19.3%	31.1%	100.0%
Paper Products, Printing & Publishing	10.1%	13.2%	12.6%	64.2%	100.0%
Chemical, Petroleum & Coal Products	9.1%	17.9%	8.7%	64.3%	100.0%
Non-Metallic Mineral Products	8.7%	22.0%	15.5%	53.8%	100.0%
Basic Metal Products	5.6%	7.3%	12.3%	74.8%	100.0%
Fabricated Metal Products	8.4%	20.0%	20.3%	51.3%	100.0%
Transport Equipment	10.3%	17.0%	12.6%	60.1%	100.0%
Other Machinery & Equipment	9.0%	23.0%	17.0%	51.0%	100.0%
Miscellaneous Manufacturing	15.6%	27.8%	15.0%	41.7%	100.0%
Electricity etc	2.1%	4.2%	11.3%	82.3%	100.0%
Construction	9.4%	14.2%	13.6%	62.8%	100.0%
Wholesale Trade	11.0%	17.6%	13.9%	57.6%	100.0%
Retail Trade	23.7%	26.8%	19.6%	29.9%	100.0%
Transport & Storage	8.6%	13.9%	15.7%	61.9%	100.0%
Communication	4.5%	9.6%	12.2%	73.6%	100.0%
Finance etc	7.5%	11.8%	14.5%	66.1%	100.0%
Public Admin & Defence	7.9%	8.6%	9.9%	73.6%	100.0%
Health, Educ etc	8.6%	9.5%	12.6%	69.3%	100.0%
Welfare & Religious Institutions	27.5%	12.5%	15.7%	44.3%	100.0%
Entertainment & Recreational Service	14.6%	8.9%	15.5%	61.0%	100.0%
Restaurants, Hotels & Clubs	27.8%	21.2%	23.0%	27.9%	100.0%
Personal Services	34.1%	22.7%	18.6%	24.6%	100.0%
Private Households Employing Staff	81.0%	19.0%			100.0%
Total	12.4%	15.1%	14.3%	58.2%	100.0%

Source: unpublished data from ABS, 1993, Survey of Training and Education, CURF.

Population: Adult employees working 16 hours a week or more.

Notes:

1. For guidance on how to interpret the significance of these estimates see 'A note on the data.'
2. Industries are based on a mix of one and two digit ANZSIC categories.
3. Estimates of hourly wage rates have been generated by taking the mid points in reports of hours worked eg workers reported as falling in the 35-40 bracket were assumed to work on average 37.5 hours per week. Note that for employees working 15 hours a week or less, reports of hours worked were based on excessively large intervals and were therefore excluded from these calculations. Estimate of overtime were based on the assumption that overtime was paid at a penalty of 1.5 times the normal hourly rate.

While it is obvious that some industries are more likely to be affected than others it is also important to recognise that within industries some occupations are more likely than others to be affected. In particular, blue collar occupations have larger proportions of low paid employees. And within these, generally speaking, women are paid far less than their male colleagues. These differences are clearly apparent in Table 3.

Table 3: Proportion of Employees on Less Than \$9.00 Per Hour by Occupation and Gender, Australia 1993

<i>Occupation</i>	<i>All</i>	<i>Male</i>	<i>Female</i>
Managers	6	5.8	6.8
Professionals	4.6	4.2	5.0
Para Professionals	5.8	3.6	8.4
Trades	12.6	10.5	36.3
Clerks	9.5	5.5	11.1
Sales	19.9	15.2	23.6
Plant and Machine Operators	14.0	12.1	25.8
Machine Operations	20.6	14.3	29.7
Labourers and Related Workers	26.0	20.4	35.9
Trades Assistants & Factory Hands	24.4	16.6	36.5
Cleaners	29.3	19.8	36.0
All	12.4	10.1	15.6

Source: unpublished data from ABS, 1993, Survey of Training and Education, CURF.

Population: Employees working 16 a week or more a week.

Note: The first six occupation categories are based on the highest level of aggregation. For the less skilled blue collar occupations we have identified proportions for the more disaggregated occupations of interest to the unions who commissioned this research.

This table clearly shows that over one employee in five working as a machine operator, trades assistant, factory hand or cleaner received \$9.00 an hour or less in 1993. The gender break down of these figures indicates that around a third of women working in these occupations would be effected by Stage 1 of the Living Wage claim. The importance of blue collar status becomes even clearer when those working for less than \$10.50 per hour are considered. The overwhelming majority of blue collar employees fall within this level of pay. For tradeswomen it covered around two in three, machine operators around 80% and trades assistants and factory hands around 75%. Consequently, while most women in the workforce are employed in white collar occupations, a sizeable percentage (around 15%) undertake blue collar work. A larger proportion of these women stand to be affected by the 'living wage' than any other group within the labour market.

The analysis so far has established the industries and occupations most likely to be affected by the Living Wage claim. There are, however, other dimensions to low paid employment. These include size of firm (defined as large or not large), union membership, level of education (defined according

to the possession of post-school qualifications) and ethnicity (defined as NESB or Anglo). To shed light on how these factors are associated with low paid work we have developed a number of occupational scenarios to show how these variables intersect to create pockets of low paid workers. The five groups examined were metal fitting and machining tradespersons, vehicle tradespersons, trades assistants and factory hands, cleaners and labourers and related workers. Full details of this analysis are provided in Appendix 1. In this analysis we make considerable use of earnings quartiles. A quartile refers to a 25% portion of the workforce. In this analysis the first quartile covers the poorest 25%. The second covers the next 25% of manufacturing employees (ie those earning more than the lowest paid 25% by but less than the median (50%) level of income). The third and fourth quartiles cover the remaining segments of the population.

This analysis was undertaken to identify labour market 'black spots' where significant groupings of workers receive less than \$9.00 per hour. With one exception, these black spots are found in the bottom quartile of the earnings distribution for the particular group of workers. In one case - NESB labourers working outside manufacturing, in non-unionised firms which are not large - the median hourly rate is below \$9.00 per hour. *Indeed, the estimate here, of \$8.40 per hour, equates to a weekly income of \$319 for a 38 hour week.* There are about 10,000 workers in this situation nationally (Appendix 1, Table 1.5b).

The remaining black spots - the bottom quartile groupings - cover labourers and cleaners working outside manufacturing, and trades assistants and factory hands working both in manufacturing and outside manufacturing. Amongst the most significant groupings are:

- **non-unionised trades assistants and factory hands** where the bottom quartile earn \$8.68 an hour. This grouping consists of over 40,000 workers, so the bottom quartile would equal about 10,000 workers. Within this grouping a considerable proportion (about 24,000 of the total 40,000) are found in non-unionised firms which are not large. The lowest wage of all is paid to women workers in this situation, an estimated \$7.50 per hour (though numerically, this grouping is quite small) (Appendix 1, Table 1.3a).
- **trades assistants and factory hands working outside manufacturing.** While the numbers in this group are much smaller, the pattern is the same: non-unionised firms which are not large pay the lowest wages. The bottom quartile of workers in these situations receive an hourly wage that ranges from \$7.50 to \$8.21. In weekly terms, this means a range of \$285 to \$312. (It has to be kept in mind that a number of these groupings are relatively small, and that we are also talking of the bottom quartile.) (Appendix 1, Table 1.3b).
- **cleaners working outside manufacturing.** The cost of working in firms which are not unionised and are not large is dramatic amongst this group of workers. *For cleaners in firms that are not large - a group numbering over 32,000 - the median weekly earnings is just \$366 per week, and a quarter of these workers earn less than \$7.37 per hour -*

that is, \$280 per week. These figures are highly reliable, with a cell sample size of 74 (and two standard errors equalling just 80 cents). Amongst this group of workers, those not in a union fare even worse. About 20,000 workers earn a median weekly wage of \$342 and a quarter of them earn less than \$7.00 per hour - \$266 per week. Finally, at the bottom of this litany are female cleaners, where the bottom quartile earn just \$6.50 per hour. (Appendix 1, Table 1.4).

- **labourers working outside manufacturing.** Once again firm size and unionisation are the key structural determinants of wages. For those working in firms that are not large - nearly 75,000 workers - the weekly median wage is just \$361 and a quarter of these workers earn less than \$8.15 per hour (\$310 per week). The same weekly wage is paid to non-unionised workers - over 100,000 - and the bottom quartile earns about \$8.28 per hour (\$315 per week). Again, the demographic factors for this group of workers mirror the situation for cleaners: women fare badly and NESB workers fare the worst of all. While the NESB grouping who work in firms that are not large and not unionised is relatively small (just 10,000 workers) their situation is amongst the worst of all workers. As mentioned earlier, the median weekly wage is just \$319 per week and the bottom quartile earn \$7.00 per hour (\$266 per week). (Appendix 1, Table 1.5b).

Putting 'Faces' to Figures

It is always difficult with statistical data to envisage who lies behind the figures. Who are the people in these various table cells? Sometimes we may have qualitative data to complement the statistics, but this is not the case with this earnings research though focus group material on expenditure patterns is available from organisations such as the Brotherhood of St Laurence. The next best option is to look at a small group of cases within the sample to see if they have common characteristics and then describe those characteristics. We follow this option here.

One of the worst black spots in the low end of the labour market is that of trades assistants and factory hands who work in the manufacturing sector in non-unionised workplaces which are not large (Appendix 1, Table 1.3a). Amongst the bottom quartile - a group earning about \$333 a week - are a dozen cases whose characteristics are quite similar:

- three quarters are women; two thirds of them are over 30; just over half are married;
- three quarters are NESB and they are equally split between Southern European origins and Asian origins; their date of arrival in Australia is uniformly spread across the last three decades.
- nearly all of them left school at 15 or 16 and have no further educational qualifications.
- they nearly all work full-time as permanents, and over half have worked with their employer for more than 5 years.
- they all work in the private sector, mostly in food and beverage production, and in clothing and footwear; half were in medium size

workplaces (between 20 and 99 employees) and the remainder in workplaces with under 20 employees.

- they all live in capital cities, mostly in Sydney and Melbourne.

Another serious black spot are NESB labourers working outside manufacturing in non-unionised firms which are not large (Appendix 1, Table 1.5b). The median earnings of this group are just \$319 a week, and the bottom quartile earn just \$266 per week. There are two dozen cases in this group and their characteristics are as follows:

- nearly three quarters are women; half of them are over 45; half were married and half single;
- half have migrated from Southern Europe, the other half from Asia; half had arrived in Australia before 1975 and only about a sixth had arrived in the five years prior to the survey.
- nearly all left school at 16 and had no further educational qualifications.
- half worked as full-timers; half as part-timers, with most of the part-timers working between 16 and 24 hours per week; half were permanents and half were casuals; more than half had been in their jobs for 5 years or more, and only a quarter had been in their jobs less than 2 years.
- they nearly all worked in the private sector; about 40% worked in restaurants and hotels while about one third were split between the health and retail industries; two thirds were in workplaces with less than 10 employees.
- they nearly all lived in capital cities, spread around the states of Australia, but with the largest concentration in New South Wales.

The final example are a group of labourers working in manufacturing whose median weekly wage is \$376 (Appendix 1, Table 1.5a). They work in firms which are not large and their other characteristics are:

- four fifths were born in Australia, and the overseas born came from the UK and from Southern Europe.
- all left school at 16 and had no further educational qualifications.
- four fifths worked as full-timers and three quarters were permanents; more than half had been in their jobs for 5 years or more, and only a quarter had been in their jobs less than 2 years; about 60% are men; their ages ranged from the twenties through to the fifties; three quarters were not in a union.
- they all worked in the private sector; about one third worked in the manufacture of machinery and equipment and one quarter worked in clothing and footwear manufacture; more than half the workplaces were under 20 employees in size.
- they nearly all lived in capital cities, with the majority living in Victoria and New South Wales.

LOW WAGE WORKERS: THE SITUATION OF BLUE COLLAR WORKERS IN MANUFACTURING

The analysis of key characteristics of low wage employment across the labour market highlighted the significance of low wage jobs in

manufacturing. It is now necessary to examine the situation in this segment of the labour market more closely. Particular attention is devoted to two key areas of manufacturing that are the subject of the Living Wage claim: textiles, clothing and footwear (TCF) and metal manufacturing (Metals).

Trends in the Dispersion of Wage Earnings Amongst Blue Collar Manufacturing Employees

Before considering the precise situation prevailing in TCF and Metals, it is first important to consider the trends in manufacturing earnings for employees over the last decade. Given the focus of this case on the situation of low paid employees, it is especially important to examine trends in low and high wage segments. The limitations in time series information available means that it is only possible to report on trends in the dispersion of manufacturing wages for four segments or quartiles. Table 4 summarises the levels of wage income for these employees as at May 1995 and how their levels of wage income have changed over the period 1986 - 1995, both on average and for different quartiles.

Table 4: Trades and Labourers Working in Manufacturing; Ordinary Time Hourly Earning as at May 1995 and, Movements in Those Earnings 1986 - 1995, Estimates for Mean, 1st and 4th Quartile, Employees, Australia.¹

	<i>Mean - ordinary time hourly rate (\$)</i>	<i>Quartile Mean - ordinary time hourly rate</i>	
		<i>1st Quartile (\$)</i>	<i>4th Quartile (\$)</i>
Male Tradespersons	14.99	11.44	18.89
(% change since 1986)	(56%)	(49%)	(66%)
Male Labourer	12.94	10.07	16.21
(% change since 1986)	(52%)	(45%)	(58%)
Female Labourer	11.00	9.07	13.80
(% change since 1986)	(56%)	(43%)	(69%)

Source: unpublished data from ABS, 1993, Survey of Training and Education, CURF.

Population: Adult employees in the manufacturing industry.

Note

1. The validity of the data has been cross checked with a number of sources. Time series of overall means have been cross checked with data on key four digit occupations from ABS Cat.6306.0. The validity of the dispersion data has been cross checked for 1989 and 1993. The 1989 cross check was done using information generated for the 1989 Minimum Rates Adjustment process. The survey involved responses from 3,516 metal and engineering establishments. The 1993 cross check was done using unpublished information from the Survey of Training and Education (STE). The cross checking revealed that in both years the relativities between the quartiles were fairly similar between the different series even though the estimates of the absolute amounts were not identical. These differences in

absolute levels arise from (1) different data collection methods and (2) different levels of aggregation used for reporting occupational wage information.

This table reveals a number of key characteristics about current wage levels and movements in them for key occupations in Australian manufacturing industry. These can be summarised as follows:

- the most obvious is that male trades persons (on \$14.99 per ordinary time hour) earn more than male labourers (on \$12.94). Both earn significantly more than female labourers (\$11.00)
- average movements in pay have been fairly similar for all three groups over the decade to 1995 increasing by a little over 50%, or an average of less than 5% per annum.
- movements in pay have not been uniform across the quartiles. Those in the lowest quartile have moved at a lower rate (ie just under 50%) compared with those in the top quartile (between 58% and 69%). Evidently, over time, the low paid in these occupations are falling further behind their higher paid colleagues who perform essentially the same kind of work
- female labourers in manufacturing in the lowest quartile earned, on average around \$9.00 an hour in May 1995. These data confirm that they are likely to be the group most affected by the claim if it is granted.

It could be argued that these trends are misleading because the data are reported at too a high level of aggregation. For example, 'tradespersons' covers everyone from hairdressers to electrical fitters. These trends are, however, confirmed when movements in average wage levels for more disaggregated occupational categories are examined. This is evident in Table 5 which clearly shows that the trend data in Table 4 is not simply an artefact of aggregation.

Table 5: Wage levels in May 1995 and Average Wage Movements for Highly Disaggregated Occupational Groupings: 1986 - 1995.

	<i>Wage Level 1995 (ordinary time hourly earnings)</i>	<i>Change 1986 - 1995</i>
Male Fitters and Machinists	\$16.63	61.2%
Male Trades Assistants and Factory Hands	\$12.89	54.1%
Female Trades Assistants and Factory Hands	\$11.00	53.6%
Female Textile Sewing Machine Operators	\$10.80	59%

Source: ABS, *Distribution and Composition of Employee Earnings and Hours*, May 1986 - 1995 Cat No 6306.0.

The Industry and Occupational Location of Low Wage Earners Within Manufacturing

The above analysis has shown how, even within occupations, low paid blue collar workers have fared worse than their more highly paid colleagues. It is now important to identify just where in manufacturing these employees are located. Such an exercise requires the use of more highly disaggregated industry by occupation statistics using data provided by the ABS Survey of Training and Education. Key findings identifying the industry and occupational features of low paid employees are summarised in Tables 6 and Appendix 2.

Table 6: Average Hourly Earnings in Manufacturing by Blue Collar Occupational Groups Australia, 1993¹

<i>Industry²</i>	<i>Trades (\$)³</i>	<i>Machine Operators (\$)³</i>	<i>Trades Assistants and factory hands (\$)³</i>	<i>Sub-total of these 3 occupations (\$)³</i>	<i>Total (\$)³</i>
Food, Beverage and Tobacco	12.19 (42) ⁴	11.74 (32)	11.29 (90)	11.61 (164)	12.17 (309)
Textiles, Clothing and Footwear	11.08 (21)	8.98 (78)	[9.04] ⁵ (21)	9.35 (119)	10.09 (160)
Metal Manufacturing	13.02 (228)	11.89 (44)	11.60 (123)	12.45 (395)	13.64 (732)
Other Manufacturing	12.61 (150)	10.83 (85)	11.27 (75)	11.80 (310)	13.15 (640)
Total Manufacturing	12.71 (441)	10.54 (239)	11.26 (308)	11.73 (988)	12.91 (1,840)
Total Non-Manufacturing	12.49 (877)	[10.92] (16)	10.21 (103)	12.22 (997)	13.72 (8,421)
Total	12.56 (1318)	10.56 (225)	10.99 (412)	11.97 (1985)	13.57 (10,262)

Source: unpublished data from ABS, 1993, Survey of Training and Education, CURF.

Population: Adult employees in the labour force working 16 hours a week or more.

Notes:

1. For guidance on how to interpret the significance of these estimates see 'Notes on the data used in this report'.
2. Industries are based on reconfiguring two digit ANZSIC categories. Metal Manufacturing covers Basic Metals, Fabricated Metal Products, Transport Equipment and Other Machinery and Equipment. Other manufacturing includes all remaining manufacturing industries not reported separately.
3. To generate the estimates of hourly rates mid points were taken in reports of hours worked eg workers reported as falling in the 35-40 bracket were assumed to work on average 37.5 hours per week. Estimate of overtime were based on the assumption that overtime was paid at a penalty of 1.5 times the normal hourly rate. The top and bottom 0.5% of the population have been removed to minimise the effects of extreme outliers on the averages.
4. Numbers in brackets represent number of observations. The larger the number, the more precise are the estimates.

5. Estimates in [] are based on fewer than 30 observations. They should be regarded as being sensitive to a high degree of sampling error.

The data in these tables also reveals that the greatest concentration of low paid manufacturing employees are in the TCF sector. Appendix Table 1 reveals that this is especially concentrated amongst the women in this industry. This latter table also reveals that many female machine operators throughout manufacturing earn low wages, but that most of them (about two in three) are employed in the TCF sector. On the other hand these data reveal that, on average, the living wage claim is unlikely to affect nearly as many employees in metal manufacturing.

This begs the question: how many employees working in these industries are likely to be affected by the Living Wage claim? Table 7 shows how males and females are spread across the different occupations in these industries. It reveals that the single biggest concentration of employees in clothing and footwear are female machinists. This is, coincidentally, the same segment with the lowest average rate of pay revealed in Table 6 above and in Appendix 2.

Table 7: Employment in the Clothing & Footwear and Metal Manufacturing Industries by Occupation by Sex, early 1990s

<i>Occupations</i>	<i>Clothing & Footwear</i>		<i>Metal Manufacturing</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Manager	985	1,861	30,192	3,565
Professionals	353	978	17,379	2,913
Para-Professionals			14,687	2,038
Trades	3,629	3,996	104,908	2,406
Sales Workers	1,593	2,031	10,907	26,763
Clerks	1,253	2,817	7,809	2,740
Plant Operator	3,720	29,766	33,431	6,410
Labourers	4,441	9,584	42,288	21,832

Source: For clothing and footwear: ABS, STE Unit Record Data, For metals: 1991 Household Census Unpublished information

Population: Total Employment in each industry

How many employees are likely to be affected by the living wage in this industry? Table 7 gives some indication of this likely effect.

Table 8: Low Paid Textiles, Clothing & Footwear Employees, September 1993 Percentage of Employees in Each Hourly Wage Category

	<\$9	\$9.01-10.50	\$10.51-12.00	\$12>	Total
Clothing and Footwear	29	43	17	11	100
Metal Manufacturing	8	18	15	59	100

Source: unpublished data from ABS, 1993, Survey of Training and Education, confidentialised unit record file.

Population: Adult employees working more than 16 hours a week.

Clearly in the clothing and footwear industry if the living wage claim were granted around a third (29%) would be effected by Stage 1 and nearly three-quarters would be affected by the full claim. In metal manufacturing, on the other hand, less than one in ten would be affected by Stage 1 and less than one in four by the full claim.

While manufacturing is a significant part of the economy, it is important to remember that 80% of the workforce is employed in non-manufacturing industries. To shed more light on how the living wage claim may impact on these other sectors, brief occupational scenarios of clerical workers and cleaners are provided in the following sections.

LOW WAGE WORKERS: CLERICAL WORKERS ACROSS ALL INDUSTRIES

Clerical occupations now form the largest group of all ASCO major occupations in the Australian labour market. Some one and a quarter million workers are found in clerical jobs. The two largest industry concentrations of clerical workers are Finance (303,040) and Community Services (244,390), though considerable concentrations are also found in Manufacturing (126,096) and Public Administration and Defence (167,484).

The average hourly earnings of clerks place them ahead of all occupations except for managerial, professional and paraprofessional occupations. At an average of \$12.95 per hour, clerks earn slightly more than tradespersons who earn \$12.56 per hour, and considerably more than salespersons at \$11.71 per hour. Interestingly, the dispersion of average hourly earnings across industries for clerks is much tighter than it is for tradespersons where a considerable range of earnings are evident. For clerks, the lowest average industry hourly rate is \$11.45 (in Retail) and the highest is \$14.48 (in Electricity, Gas and Water). For tradespersons, on the other hand, the range spans a low of \$9.23 (hairdressers in the personal service industry) through to a high of \$17.54 (in Mining). (Appendix 4, provides an overview of the hourly earnings of the major occupational groupings, as well as the minor groupings relevant to this report. This allows one to gauge the relative earnings situation of different occupational groupings.)

Within the clerical occupations, the largest grouping of workers are numerical clerks (375,377), followed by stenographers and typists (232,327), and then receptionists and messengers (204,643). Average hourly earnings for all clerical groups are found in Table 9. Numerical clerks are also on the highest average hourly earnings, at \$13.68, while receptionists are on the lowest rate, at \$12.09 per hour. While industry patterns at this level of occupational disaggregation are hampered by small cell counts, we can nevertheless conclude that public sector employment for numerical clerks is the most rewarding work (at \$15.32 per hour), whilst receptionist work in Manufacturing and Recreational Services is amongst the least rewarding (\$10.88 and \$10.92 per hour, respectively).

In terms of the Living Wage claim, clerical workers are largely outside its scope. Table 10 provides the details. Nearly 60% of clerks earn above \$12.00 per hour, while less than 10% are in the relevant category of earning \$9.00 per hour or below.

Table 9: Average Hourly Earnings of Clerical Occupations, By Industry, Australia 1993

<i>Industries</i>	<i>Steno & Typists</i>		<i>Data processing</i>		<i>Numerical clerks</i>		<i>Filing, sorting, copy</i>		<i>Material recording</i>		<i>Receptionists</i>		<i>Misc Clerks</i>		<i>All Clerks</i>	
	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>	<i>\$ per hr</i>	<i>sample size</i>
Agriculture etc																
Mining																
Manufacturing	12.06	31	12.50	34	13.76	76			13.68	38	10.88	19			13.01	206
Electricity etc															14.48	34
Construction															12.08	37
Wholesale Trade	11.55	22	12.23	18	13.03	54			11.68	43					12.30	156
Retail Trade	11.97	18			12.06	43			10.34	18					11.45	101
Transport, Storage & Communication					13.76	40	12.33	24	13.48	24	12.68	41	13.18	31	13.07	183
Finance etc	13.73	97	12.74	39	13.28	174					11.81	79	13.40	40	13.09	446
Public Admin & Defence	12.93	33	13.77	36	15.32	102	12.45	16			13.72	24	14.27	70	14.28	292
Health, Education etc	12.42	86	11.57	29	13.56	70	12.33	39			12.29	79	11.68	68	12.41	375
Welfare & Religious Institutions															11.55	37
Recreational Service											10.92	17			12.94	26
Restaurant/Hotels															12.04	36
Personal Services																
Total	12.60	337	12.76	196	13.68	621	12.41	104	12.70	152	12.09	296	13.13	245	12.95	1952

Source: unpublished data from ABS, Survey of Training and Education, 1993

Table 10: Earnings Situation for Clerks (ASCO Major Group 5), 1993

Category	Adult employees working more than 15 hours per week					Employed workforce
	<\$9	\$9.01-10.50	\$10.51-12.00	\$12>	All wage groups	
Number of clerks	83,973	129,266	152,555	518,140	881,934	1,253,973
Clerks as proportion of all occupations within each hourly wage group	14.6	18.4	23.0	19.2	19.0	n/a
Proportion of clerks within each hourly wage group	9.5	14.6	17.3	58.6	100.0	n/a
All occupations	575,399	701,633	664,512	2,704,131	4,645,675	7,078,684

Source: Unpublished STE data

Population: Adult employees working more than 15 hours a week, employed workforce (last column)

We saw earlier that clerks were concentrated in Finance and Community Services. Because these two industries provide award coverage for their clerical workforce (via the FSU and the CPSU), the industries of most relevance for the Living Wage claim are wholesale and retail trade and manufacturing. With respect to the former industries, clerks earning \$9.00 per hour or less make up only 2.1% of the wholesale workforce and 1.4% of the retail workforce. In manufacturing, low wage clerical workers make up only 1.2% of that industry's workforce. Consequently, the impact of the living wage claim on clerical occupations will be minimal across most industries. Table 11 summarises summarises this industry situation.

Table 11: Earnings Situation for Clerks (ASCO Major Group 5) by Industry, 1993

Industry	Industries as prop of clerical employment	Clerks as prop of each industry's employment	Hourly wage group as a proportion of industry workforce (clerks only)				Average hourly rate (sample size in bracket)	
			\$9 and less	\$9.01-\$10.50	\$10.51-\$12.00	More than \$12	\$	Number
	%	%	%	%	%	%		
Manu- facturing	10.1	10.9	1.2	1.6	1.9	6.5	13.06	(206)
Whole- sale	8.0	23.8	2.1	4.0	4.7	11.8	12.30	(156)
Retail	5.5	7.7	1.4	2.8	2.1	4.2	11.45	(101)
Trans & Com	8.6	24.8	1.7	3.7	5.3	13.9	13.07	(183)
Finance & Bus Serv	24.2	38.3	2.9	5.7	5.9	22.9	13.09	(446)
Public admin & Def	13.4	38.2	2.3	3.2	3.1	30.2	14.28	(292)
Comm Services	19.5	17.4	2.2	2.4	3.7	8.0	12.41	(375)
Rec Services	1.4	12.2	2.7	1.4	1.4	12.2	12.94	(26)
Restau- rants, Hotels	2.0	6.3	1.5	2.8	1.8	4.2	12.04	(36)
All	100	17.7	1.8	2.8	3.3	11.2	12.95	(1952)

Source: Unpublished STE data

Population: Adult employees working more than 15 hours a week.

LOW WAGE WORKERS: CLEANERS

Just over 200,000 people work as cleaners in the Australian workforce, a proportion of just under 3%. The percentage of cleaners working at low rates of pay are outlined in Table 12.

Table 12: Earnings Situation for Cleaners (ASCO Minor Group 83), 1993

Category	Adult employees working more than 15 hours per week					Employed workforce
	<\$9	\$9.01-10.50	\$10.51-12.00	\$12>	All wage groups	
Number of cleaners	25,830	21,801	22,971	17,572	88,174	206,345
Cleaners as proportion of all occupations within each hourly wage group	4.5	3.1	3.5	0.6	1.9	n/a
Proportion of cleaners within each hourly wage group	29.3	24.7	26.1	19.9	100.0	n/a
All occupations	575,399	701,633	664,512	2,704,131	4,645,675	7,078,684

Source: Unpublished STE data

Population: Adult employees working more than 15 hours a week.

While they tend to be dispersed across a number of industries, about 70% of cleaners work in just three main sectors: Finance, Property and Business Services (30.8%); Community Services (22.5%); and Restaurants, Hotels and Clubs (17%). It is worth observing that cleaning companies are themselves included in the finance and business services sector, and so the employment figures here do not necessarily indicate in which industry the cleaners actually work. The average hourly wage for cleaners in each of these industries is:

- Finance, Property and Business Services \$10.70 (sample size of 58);
- Community Services \$10.24 (sample size of 54);
- restaurants, hotels and clubs \$9.44 (sample size of 23).

In terms of the living wage claim, about 30% of cleaners earn \$9.00 per hour or below, the majority earn between \$9.00 and \$12.00 and a small remainder (20%) earn more than \$12.00 per hour. Despite the large proportion of cleaners in the low wage group, across all low wage occupations, cleaners are insignificant, constituting only 4.5% of these low wage occupations. In terms of industry location, the low wage cleaners constitute only 1.2% of the finance, property and business services workforce; about 0.6% of the community services workforce; and 3% of the workforce in restaurants, hotels and clubs. See Table 13.

Table 13: Earnings Situation for Cleaners (ASCO Minor Group 83) by Industry, 1993

Industry	Industries as prop of cleaners employment	Cleaners as prop of each industry's employment	Hourly wage group as a proportion of industry workforce (cleaners only)				Average hourly rate (sample size in bracket)	
			\$9 and less	\$9.01 - \$10.50	\$10.51 - \$12.00	More than \$12	\$	No.
	%	%	%	%	%	%		
Manu- facturing	6.7	1.2	0.1	0.3	0.1	0.3		
Wholesale	0.5	0.3	0.2	0.2				
Retail	5.4	1.2	0.7	0.1	0.2			
Transport & Com	4.5	2.1	0.2	0.4	0.4	0.9		
Finance & Bus Serv	30.8	8.0	1.2	1.1	1.5	1.1	10.70	(58)
Public admin & Def	3.6	1.7	0.3	0.2	0.3	0.1		
Community Services	22.5	3.3	0.6	0.7	0.6	0.4	10.24	(54)
Recreation Services	2.9	4.3			0.3	0.7		
Restaurants Hotels	17.0	8.9	3.0	0.9	2.5	0.2	9.44	(23)
All	100.0	2.9	0.6	0.5	0.5	0.4	10.23	(195)

Source: Unpublished STE data

Population: Adult employees working more than 15 hours a week.

Table 13 also highlights the extent to which cleaning is largely a very part-time occupation. Our wages sample group (adult employees working 16 hours or more per week) only contains about 43% of the cleaners in the workforce. While this does not influence the wage calculations discussed above, it nevertheless indicates that we have not captured the full picture of the earnings situation for cleaners. To address this issue we have drawn on published ABS data on employee earnings from 1995. This data indicates

that male cleaners working between one and 15 hours per week earned on average \$176.10 per week, while female cleaners working between one and 15 hours per week earned on average \$177.30.¹ In other words, the 57% of cleaners not included in our analysis above appear to have very low weekly earnings. Whether or not these cleaners have second jobs, and whether or not they are the single breadwinner for their households, are not issues with which we can deal in this report. Nevertheless, these questions do point towards the larger issue of the relationship between part-time work and the living standards of low-income families. Given the steady increase in the proportion of part-time work within the economy, a proliferation of low-paid work in this area could have serious long-term implications for living standards. These are issues which will need to be examined in far greater detail when the Commission considers the latter stages of the 'living wage' concerning hours.

LOW WAGE WORKERS: EXPENDITURE PATTERNS AND PRIORITIES IF INCOME RISES

It is obvious that there are a large number of employees who are in need of some basic improvements in pay. How are they currently surviving and what would they spend any additional 'living wage' money on? On what items of expenditure are they forced to skimp? How does their expenditure compare with that of the next higher income grouping, and with that of other comparable households? To answer these questions, we have examined data from the 1989 Household Expenditure Survey. We have looked at two kinds of households, both of which are dependent on a single income:

1. the classic 'Harvester' household, comprising a couple with dependant children;
2. a single person household.

Moreover, we have also taken account of the housing situation of workers by examining households where the home is being purchased (the couple) and where the home is rented privately (the single person). These categories are the two most common situations for low income households. In the following discussion 'comparable households' means a comparison by income grouping with other households in the same housing category. The findings for two different household types are reported below.

Single Income Couples With Dependants

Amongst single income families with dependents who were paying for their homes on mortgage, the effect of low wages was felt in both discretionary and non-discretionary areas of expenditure. As Table 14 shows, food expenditure was about \$30 per week less than a similar family on average income, and over \$10 per week less than families in the next income bracket above. Clothing and footwear expenditure was about half that of similar families on the average income, as was transport and medical expenditure. Both medical and transport expenditure appear to be particularly sensitive to

¹ Average ordinary time earnings for cleaners, Australia, 1995. ABS, *Distribution and Composition of Employee Earnings and Hours, May 1995*, Cat. 6306.0

low incomes, since expenditure rises steeply when moving into the next two income brackets above.

As for discretionary expenditure, recreation and entertainment receive only about half that of similar families on average income. The higher expenditure on alcohol and tobacco by low income households compared with the next income household may partly reflect social or cultural factors, but it may also reflect 'compensatory spending'. These items become major forms of recreation in the absence of access to other activities.

Insurance and savings were also badly affected by low income, with the amount spent on superannuation and life insurance *less than* one quarter the amount spent by similar families on average income. This expenditure appeared to rise steeply in the next income bracket above.

In summary: for areas like clothing and footwear, medical health and care, transport, recreation and entertainment, and personal care, low income households spent only about half as much as other comparable households. In the less negotiable areas like housing costs, fuel and power, food and beverages, the difference ranged between 70% and 96%.

Amongst this category of household, the effect of paying off a mortgage impacts heavily on the expenditure patterns of low income families. The average proportion of the family's *gross* income consumed by the mortgage (partly shown here) is about 35% for low income families. This is about twice the proportion of family income spent on the mortgage by comparable households on average incomes. Naturally, because it is an average, there will be a considerable number of low income families who spend over 40% of their weekly income on their mortgage.

Table 14: Couple, Single Income, with Dependants, Buying their Home

Expenditure items	Earning under \$400 per week				Earning \$400-499 per week		All households	
	\$pw	% gross income	% next income household	% all households	\$pw	% Gross income	\$pw	% Gross income
Housing costs	97.03	31	89	84	109.25	24	115.97	16
Fuel and power	15.01	5	112	96	13.46	3	15.64	2
Food and beverages	75.82	24	88	69	86.41	19	109.95	16
Alcohol	9.10	3	118	80	7.69	2	11.41	2
Tobacco	11.52	4	168	166	6.86	2	6.94	1
Clothing and footwear	13.97	4	75	48	18.65	4	29.31	4
Furnishings and equipment	30.72	10	97	77	31.84	7	40.12	6
Services and operation	18.48	6	74	67	25.01	6	27.81	4
Medical care and health	13.03	4	59	49	22.02	6	26.54	4
Transport	42.29	13	68	53	62.09	14	79.50	11
Recreation and entertainment	28.67	9	84	51	34.26	8	56.19	8
Personal care	4.71	2	73	52	6.46	1	9.03	1
Misc goods and services	23.49	7	73	60	32.25	7	39.05	6
Super and life insurance	4.88	2	35	21	13.91	3	23.31	3
Gross income	318.46		70	45	455.36		707.83	
Population estimates	21,513				53,724		274,824	

Source: Australian Bureau of Statistics, Household Expenditure Survey, 1988-89, CURF

Single Person Households

Despite this emphasis on the impact of mortgage repayments, it does not follow that a low income is adequate for people without this kind of burden. If we examine the expenditure patterns of single person households, without dependants, who are renting privately, we still find that a low income does not allow individuals to fully participate in their community. Housing costs constitute only about a quarter of the income for low income single person households (see Table 15), yet an income under \$400 per week is still not sufficient to maintain an adequate standard of living. As Table 15 shows, discretionary expenditure on items such as recreation and entertainment, alcohol and savings and insurance are all well below the levels for similar households on average income. Even expenditure on transport and food is as much as a third lower amongst the low income households, compared with average income households.

An increase in income amongst single person households is likely to improve their discretionary expenditure, particularly on recreation and entertainment.

In summary, recreation and entertainment amongst single person households is severely curtailed, while medical care, transport and food are all well below the expenditure levels of other comparable households.

Table 15: Single Person Household, No Dependants, Renting Privately

Expenditure items	Earning under \$400 per week				Earning \$400-499 per week		All households	
	\$pw	% gross income	% next income household	% all households	\$pw	% Gross income	\$pw	% Gross income
Housing costs	77.83	24	99	95	78.96	18	81.70	17
Fuel and power	7.61	2	108	102	7.07	2	7.49	2
Food and beverages	39.88	12	75	70	53.09	12	57.34	12
Alcohol	11.68	3.6	37	54	31.29	7	21.67	4
Tobacco	7.92	2	123	110	6.43	2	7.23	2
Clothing and footwear	17.81	5.5	227	145	7.85	2	12.26	3
Furnishings and equipment	16.29	5	65	83	25.13	6	19.74	4
Services and operation	10.39	3	105	91	9.93	2	11.45	2
Medical care and health	6.59	2	81	73	8.18	2	9.08	2
Transport	43.17	13	70	71	61.55	14	60.68	12
Recreation and entertainment	20.84	6	35	41	60.06	14	50.40	10
Personal care	4.45	1	128	101	3.48	1	4.39	1
Misc goods and services	13.85	4	78	67	17.82	4	20.77	4
Super and life insurance	5.85	1.8	68	53	8.61	2	11.13	2
Gross income	324.5 4		74	66	439.2 9		489.3 3	
Population estimates	63,02 4				44,42 4		175,9 58	

Source: Australian Bureau of Statistics, Household Expenditure Survey

KEY FINDINGS

The key findings arising from this analysis can be summarised as follows:

- there are many workers earnings below the 'living wage' level of income and their situation is getting worse relative to higher paid employees, even within the same occupations. While exact estimates are not possible we believe economy-wide that one worker in ten is employed on an hourly rate of less than \$10 and a further one in eight is probably earning less than \$11.50. These proportions are significantly higher for women
- low paid employees are concentrated in certain industries and occupations, particularly especially amongst those in which women

predominate. Around a third of TCF workers will be affected by stage one of the claim, many of whom are women machinists.

- in industries such as Metal and Engineering the impact will be significantly less due to overawards and the high incidence of enterprise agreements, although stage one will probably affect between 5% and 10% of that industry's employees.
- life with a wage level at or below the claim is tough. Currently single income families are spending about half the amount spent by the average comparable household on such basics as clothing and footwear, medical care and transport. In the less negotiable areas like housing costs, fuel and power and food beverages, the differences ranged between 70% and 96%. Besides raising consumption on necessities an increase in earnings would most likely lead to an increase in expenditure on insurance and savings.

Our findings show that the Living Wage claim is underpinned by a real need to protect the living standards of low paid employees. If the Commission chooses not to intervene, then these living standards will deteriorate. Analysis of expenditure patterns shows that an increase in earnings would significantly contribute to the material quality of life of the lowest paid workers in the Australian labour market. These increased earnings would not fuel inflation, since one could expect an increase in household savings, through increases in insurance or superannuation, as well as an increase in consumption. Nor would increased earnings worsen the balance of payments deficit, since those items whose consumption would increase - such as food and recreation - are mostly domestic products. If Australian workers are to fully participate in the life of their community, then their material standard of living - their food and clothing expenditure - must be protected, and their cultural needs - through recreation and transport - must be recognised.

APPENDICES

Appendix 1: Analysis of Earnings of Selected Occupations - Sources and Methods Used

Introduction

How much do low paid workers actually earn, and how does their situation in the labour market influence this? To answer these questions we have examined data from an Australian Bureau of Statistics national survey carried out in 1993. This survey produced data of a very high standard, used a large sample, and provided an extensive range of relevant labour market variables.

The bottom end of the labour market provides little protection for workers. There are, however, both structural and demographic factors which strongly influence the level of wages paid in that labour market. The structural factors are firm size and whether or not the job is unionised. The demographic factors are gender and ethnicity. In the following analysis these factors are taken into account in the following fashion:

- the effects of firm size and unionisation on wage levels is provided for each occupation. Often the benefits of unionisation are hidden by firm size (since large firms are more likely to be unionised) so the effects of each are also taken into account.
- where sample cell sizes allow, comparisons between males and females, and between Anglo and NESB workers, are made. These are provided within the context of the structural settings of firm size and unionisation (so that demographic and structural effects are not confused).
- where appropriate additional comparisons are provided. These include post-school qualifications versus no qualifications, full-time versus part-time status, private sector versus public sector. These comparisons do not control for either structural or demographic factors.

Findings

Tables 1.1 to 1.5b contain detailed estimates of hourly earnings for adult employees working more than 15 hours per week. They cover the following occupations:

- metal fitting and machining tradespersons
- vehicle tradespersons
- trades assistants and factory hands
- cleaners
- labourers and related workers

The top rows in each table show the influence of the key variables on earnings. Subsequent rows show various permutations of these variables. *Please note that each indentation is a complete description, not a subset of the row above.*

Methodology

Definitions

The sample used for this analysis is a sub-sample of the Survey of Training and Education. It has been restricted to wage and salary earners aged 21 and over.

The definition of 'NESB' is persons born overseas in countries which were not mainly English speaking. 'Anglo' refers to those persons born in Australia and those born overseas in mainly English speaking countries.

'Large firms' refers to firms which employed 100 or more employees. 'Not large firms' refers to those with less than 100 employees (note: the unit here is firms, not workplaces).

'Median weekly earnings' and 'median hourly rates' refer to estimates which occur at the mid-point in the earnings distribution. The 'mean hourly rate' refers to the arithmetical average, while the 'two standard errors' refers to a figure which is double the standard error of the mean. (It provides a 95% confidence interval for the estimates of the mean. That is, one can be 95% confident that the true population mean for the hourly rate is within plus or minus this figure).

The sample size refers to the actual number of people in the particular sub-group within the sample. The population estimates are what that sample size amounts to when they are weighted to bring them up to national figures.

The Data Set

The Survey of Training and Education was conducted by trained Australian Bureau of Statistics interviewers during April and May 1993. It involved household interviews and was thus not a self-completion questionnaire (such as the Census). For this reason, its data is highly reliable and non-sampling error would be minimal. The other kind of error associated with surveys (sampling error) is also reasonable because of the large sample size. Over 20,000 people were interviewed and this provided very good cell sizes for the various sub-groups analysed in this report.

The Analysis

One of the main concerns in the analysis was to develop reliable estimates of earnings which would not overstate the situation of low wage earners. Consequently, a fairly conservative approach was adopted for converting discrete data (such as income and hours intervals) into continuous data (which was necessary for working out wage rates). If this had not been done, the charge may have been laid that the wage rates were artificially low. Therefore, in each of the following steps, caution was exercised to minimise this risk.

The analysis followed a number of steps:

- a sub-sample was created which dropped people working under 15 hours per week (since this was too wide an interval to be used reliably). People under 21 were also dropped, to eliminate the distortions caused by junior rates. All hours intervals (except the top one) were recoded to their mid-points. The top hours interval was fixed at its lowest value to ensure that dividing income by a high hours estimate would not artificially lower the wage rate. Overtime - at time and a half - was added to all hours worked beyond 38 hours. Double time was not used, again due to caution. Finally, people found in the bottom 1.5% and the top 1.5% of the earnings distribution were dropped because they appeared to be exceptional cases. While their presence would cancel out in large groups, they could distort the estimates for smaller sub-groups. At other stages in the analysis, where larger groups were involved, only the bottom and top 0.5% were dropped.
- regression equations were estimated for each of the occupational groupings so as to identify the key factors influencing wage rates. There were found to be union membership and firm size, gender and ethnicity. Estimates were not calculated from the regression equations because the standard errors were too high and because such equations could not provide median and quartile data.
- a series of group means, and their standard errors, were calculated, as well as medians and quartiles. These appear in the accompanying tables. Sub-groups whose population estimates fell below 8,000 were omitted because their relative standard errors were over 25%.

Table 1.1

Metal Fitting and Machining Tradespersons	<i>Median weekly earnings</i>	<i>Median hourly rate</i>	<i>Mean hourly rate</i>	<i>2 standard errors</i>	<i>Bottom quartile</i>	<i>Sample size</i>	<i>Population estimate</i>
<i>Category</i>	\$	\$	\$	\$	\$		
All workers	502	13.21	13.32	0.47	11.40	198	94,474
■ Manufacturing	513	13.50	13.29	0.63	11.01	110	53,581
● Large firm	513	13.51	13.92	0.77	11.46	77	38,192
● Not large firm	475	12.50	11.84	1.03	9.62	33	15,388
◆ Union member	513	13.50	13.94	0.76	11.70	73	36,764
◆ Not union member	475	12.50	12.02	1.02	10.02	37	16,817
Large firm & union member	513	13.51	14.26	0.82	12.43	63	31,753
Large firm & not union member	-	-	-	-	-	-	-
Not large firm & union member	-	-	-	-	-	-	-
Not large firm & not union member	475	12.50	11.80	1.33	9.39	23	10,377
❖ Some form of post-school qualification	513	13.50	13.49	0.70	11.43	95	47,201
❖ No post-school qualifications	-	-	-	-	-	-	-
■ Not manufacturing	485	12.75	13.36	0.71	11.50	88	40,894
● Large firm	513	13.51	14.02	0.97	11.46	54	24,764
● Not large firm	454	11.96	12.32	0.90	11.50	34	16,130
◆ Union member	513	13.51	13.99	0.81	11.65	58	26,236
◆ Not union member	441	11.60	12.16	1.27	10.44	30	14,658
Large firm & union member	513	13.51	14.09	0.99	11.50	46	21,021
Large firm & not union member	-	-	-	-	-	-	-
Not large firm & union member	-	-	-	-	-	-	-
Not large firm & not union member	437	11.50	11.63	1.18	10.44	22	10,915
❖ Some form of post-school qualification	502	13.21	13.52	0.74	11.50	81	37,185
❖ No post-school qualifications	-	-	-	-	-	-	-

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.2

Vehicle Tradespersons	Median weekly earnings	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
All workers	437	11.50	11.99	0.48	9.85	159	76,362
■ Not manufacturing	437	11.50	12.05	0.52	9.85	145	68,972
● Large firm	475	12.50	13.38	0.89	11.26	49	21,868
● Not large firm	431	11.35	11.37	0.60	9.39	96	47,103
◆ Union member	530	13.96	13.73	0.66	10.50	27	12,806
◆ Not union member	431	11.35	11.67	0.54	9.43	118	56,166
Large firm & union member	594	15.64	14.96	1.36	12.50	19	8,820
Large firm & not union member	476	12.53	12.37	1.02	10.50	30	13,049
Not large firm & union member	-	-	-	-	-	-	-
Not large firm & not union member	431	11.35	11.42	0.63	9.40	88	43,117
❖ Some form of post-school qualification	441	11.60	12.21	0.54	10.25	126	59,481
❖ No post-school qualifications	399	10.50	10.98	1.60	8.11	19	9,491

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.3a

Trades assistants and factory hands	Median weekly earnings	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
All workers	390	10.27	10.94	0.34	9.06	373	184,481
■ Manufacturing	390	10.27	11.06	0.41	9.06	274	138,226
● Large firm	399	10.50	11.44	0.50	9.19	197	99,940
● Not large firm	361	9.50	10.12	0.65	9.19	77	38,287
◆ Union member	399	10.50	11.33	0.50	9.19	191	96,438
◆ Not union member	390	10.27	10.46	0.73	8.68	83	41,788
Large firm & union member	413	10.88	11.60	0.54	9.19	162	82,218
Large firm & not union member	390	10.27	10.72	1.33	8.50	35	17,722
Not large firm & union member	349	9.19	9.87	1.17	7.80	29	14,220
Not large firm & not union member	389	10.23	10.27	0.82	8.76	48	24,066
Large firm & union member & male	437	11.50	12.22	0.71	9.50	100	52,306
Large firm & union member & female	390	10.27	10.60	0.76	8.50	62	29,912
Large firm & not union member & male	395	10.39	12.01	2.04	9.19	20	11,168
Large firm & not union member & female	-	-	-	-	-	-	-
Not large firm & union member & male	-	-	-	-	-	-	-
Not large firm & union member & female	-	-	-	-	-	-	-
Not large firm & not union member & male	431	11.35	11.43	1.14	9.50	25	12,897
Not large firm & not union member & female	349	9.19	9.00	0.94	7.50	23	11,170
Large firm & union member & Anglo	424	11.17	11.69	0.69	9.19	103	50,172
Large firm & union member & NESB	399	10.50	11.44	0.85	9.19	59	32,046
Large firm & not union member & Anglo	376	9.89	10.33	1.79	7.97	20	10,619
Large firm & not union member & NESB	-	-	-	-	-	-	-
Not large firm & union member & Anglo	-	-	-	-	-	-	-
Not large firm & union member & NESB	-	-	-	-	-	-	-
Not large firm & not union member & Anglo	418	11.00	11.03	1.26	9.19	27	12,845
Not large firm & not union member & NESB	349	9.19	9.28	0.78	8.50	21	11,221
❖ Some form of post-school qualification	423	11.14	11.71	0.84	9.19	76	39,515
❖ No post-school qualifications	390	10.27	10.83	0.45	9.06	198	98,711
* Full-time	390	10.27	11.05	0.41	9.19	260	131,073
* Part-time	-	-	-	-	-	-	-

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.3b

Trades Assistants and Factory Hands	Median weekly earnings	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
■ <i>Not manufacturing</i>	399	10.50	10.57	0.57	9.00	99	46,255
● Large firm	410	10.78	11.03	0.70	9.38	60	28,890
● Not large firm	390	10.27	9.85	0.93	7.93	39	17,365
◆ Union member	419	11.02	11.12	0.71	9.32	58	27,347
◆ Not union member	390	10.27	9.77	0.88	8.21	41	18,907
Large firm & union member	431	11.35	11.46	0.78	9.50	45	21,682
Large firm & not union member	-	-	-	-	-	-	-
Not large firm & union member	-	-	-	-	-	-	-
Not large firm & not union member	390	10.27	9.78	1.17	7.50	26	11,699
Large firm & union member & male	434	11.43	12.20	1.10	10.27	27	13,528
Large firm & union member & female	390	10.27	10.34	0.84	9.06	18	8,154
Large firm & not union member & male	-	-	-	-	-	-	-
Large firm & not union member & female	-	-	-	-	-	-	-
Not large firm & union member & male	-	-	-	-	-	-	-
Not large firm & union member & female	-	-	-	-	-	-	-
Not large firm & not union member & male	-	-	-	-	-	-	-
Not large firm & not union member & female	-	-	-	-	-	-	-
Large firm & union member & Anglo	431	11.35	11.66	0.91	9.89	33	15,241
Large firm & union member & NESB	-	-	-	-	-	-	-
Large firm & not union member & Anglo	-	-	-	-	-	-	-
Large firm & not union member & NESB	-	-	-	-	-	-	-
Not large firm & union member & Anglo	-	-	-	-	-	-	-
Not large firm & union member & NESB	-	-	-	-	-	-	-
Not large firm & not union member & Anglo	390	10.27	9.70	1.47	7.50	19	8,420
Not large firm & not union member & NESB	-	-	-	-	-	-	-
❖ Some form of post-school qualification	422	11.11	11.31	0.97	9.50	29	14,173
❖ No post-school qualifications	390	10.27	10.26	0.69	8.14	70	32,081
* Full-time	399	10.50	10.70	0.61	9.19	79	37,076
* Part-time	n/a	10.00	10.04	1.47	8.13	20	9,178

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.4

Cleaners	Median weekly	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
All workers	390	10.27	10.15	0.40	9.00	195	87,439
■ Not manufacturing	390	10.27	10.10	0.42	8.50	181	80,913
• Large firm	399	10.50	10.40	0.46	9.01	107	48,339
• Not large firm	366	9.63	9.65	0.80	7.37	74	32,574
◆ Union member	404	10.63	10.49	0.48	9.03	101	46,877
◆ Not union member	360	9.47	9.59	0.74	8.13	80	34,036
Large firm & union member	401	10.56	10.51	0.58	9.01	72	33,978
Large firm & not union member	361	9.50	10.19	0.75	9.00	35	14,361
Not large firm & union member	404	10.63	10.46	0.88	8.14	29	12,899
Not large firm & not union member	342	9.00	9.13	1.14	7.00	45	19,675
Large firm & union member & male	390	10.27	10.27	0.80	9.50	23	11,356
Large firm & union member & female	418	11.00	10.62	0.76	9.00	49	22,622
Large firm & not union member & male	-	-	-	-	-	-	-
Large firm & not union member & female	404	10.63	10.31	1.03	9.00	21	8,640
Not large firm & union member & male	-	-	-	-	-	-	-
Not large firm & union member & female	-	-	-	-	-	-	-
Not large firm & not union member & male	-	-	-	-	-	-	-
Not large firm & not union member & female	342	9.00	8.62	1.47	6.50	27	11,755
Large firm & union member & Anglo	418	11.00	10.67	0.14	9.50	51	23,849
Large firm & union member & NESB	390	10.27	10.11	0.81	8.75	21	10,129
Large firm & not union member & Anglo	382	10.06	10.16	0.91	9.14	26	10,725
Large firm & not union member & NESB	-	-	-	-	-	-	-
Not large firm & union member & Anglo	-	-	-	-	-	-	-
Not large firm & union member & NESB	-	-	-	-	-	-	-
Not large firm & not union member & Anglo	342	9.00	8.65	1.24	6.67	34	13,632
Not large firm & not union member & NESB	-	-	-	-	-	-	-
❖ Some form of post-school qualification	397	10.45	9.98	1.17	8.72	20	9,804
❖ No post-school qualifications	390	10.27	10.11	0.45	8.50	161	71,109
*Full-time	361	9.50	9.62	0.57	8.50	91	39,383
*Part-time	n/a	11.00	10.58	0.61	9.00	90	41,530
Private sector	377	9.91	10.12	0.49	8.50	100	44,471
Public sector	399	10.50	10.07	0.73	9.00	81	36,442

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.5a

Labourers & related workers	Median weekly	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
All workers	399	10.50	10.74	0.25	9.19	551	238,125
■ Manufacturing	399	10.50	11.20	1.48	9.50	58	26,254
● Large firm	431	11.35	11.70	0.95	10.11	42	17,996
● Not large firm	376	9.89	9.91	0.81	9.19	16	8,258
◆ Union member	431	11.35	11.71	1.01	10.27	32	14,264
◆ Not union member	391	10.28	10.58	1.08	9.33	26	11,990
Large firm & union member	431	11.35	11.87	1.14	10.27	28	12,380
Large firm & not union member	-	-	-	-	-	-	-
Not large firm & union member	-	-	-	-	-	-	-
Not large firm & not union member	-	-	-	-	-	-	-

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Table 1.5b

Labourers and Related Workers	Median weekly	Median hourly rate	Mean hourly rate	2 standard errors	Bottom quartile	Sample size	Population estimate
Category	\$	\$	\$	\$	\$		
■ <i>Not manufacturing</i>	399	10.50	10.69	0.26	9.03	493	211,871
● Large firm	418	11.00	11.07	0.31	9.38	319	137,159
● Not large firm	361	9.50	9.98	0.45	8.15	174	74,712
◆ Union member	422	11.11	11.20	0.34	9.50	241	105,234
◆ Not union member	361	9.50	10.20	0.39	8.28	252	106,637
Large firm & union member	424	11.17	11.31	0.39	9.50	200	87,208
Large firm & not union member	399	10.50	10.68	0.52	9.00	119	49,951
Not large firm & union member	418	11.00	10.68	0.65	9.44	41	18,027
Not large firm & not union member	357	9.39	9.77	0.56	8.12	133	56,686
Large firm & union member & male	437	11.50	11.83	0.49	9.50	129	58,849
Large firm & union member & female	399	10.50	10.36	0.58	9.00	71	28,359
Large firm & not union member & male	399	10.50	11.06	0.65	9.38	71	31,627
Large firm & not union member & female	364	9.57	10.12	0.84	8.15	48	18,323
Not large firm & union member & male	424	11.17	10.88	0.98	9.47	18	9,665
Not large firm & union member & female	404	10.63	10.53	0.88	9.19	23	8,362
Not large firm & not union member & male	361	9.50	9.89	0.81	8.15	70	30,968
Not large firm & not union member & female	356	9.38	9.63	0.76	8.11	63	25,717
Large firm & union member & Anglo	431	11.35	11.35	0.43	9.39	158	66,289
Large firm & union member & NESB	418	11.00	11.17	0.90	9.50	42	20,919
Large firm & not union member & Anglo	399	10.50	10.68	0.56	9.00	108	44,553
Large firm & not union member & NESB	-	-	-	-	-	-	-
Not large firm & union member & Anglo	421	11.09	11.04	0.65	9.79	32	15,152
Not large firm & union member & NESB	-	-	-	-	-	-	-
Not large firm & not union member & Anglo	361	9.50	9.79	0.55	8.15	109	46,193
Not large firm & not union member & NESB	319	8.40	9.66	1.80	7.00	24	10,493
❖ Some form of post-school qualification	418	11.00	11.18	0.57	9.28	125	55,495
❖ No post-school qualifications	391	10.28	10.52	0.30	9.00	368	156,376
* Full-time	399	10.50	10.77	0.30	9.19	357	154,175
* Part-time	n/a	10.62	10.48	0.54	8.36	136	57,696
Private sector	390	10.27	10.46	0.32	8.50	326	142,931
Public sector	424	11.17	11.10	0.45	9.50	159	65,531

Source: Unpublished data from Australian Bureau of Statistics, Survey of Training and Education, 1993, CURF.

Appendix 2: Hourly Wage Levels for Occupations Within Particular Manufacturing Industries by Gender

	Trades		Machine Operators		Trades Assistants and factory hands		Sub-total of these 3 occupations	Total
	Males	Female	Male	Female	Male	Female		
Food, Beverage & Tobacco	12.49 (38)				12.05 (53)	10.19 (37)	11.61 (164)	12.17 (309)
Textiles, Clothing & Footwear	[12.17] (14)		[9.56] (17)	8.81 (61)	[9.35] (6)	[8.8]9 (14)	9.35 (119)	10.09 (160)
Metal Manufacturing	13.08 (224)		12.20 (40)	[8.83] (4)	12.41 (79)	10.11 (44)	12.45 (395)	13.64 (732)
Other Manufacturing	12.77 (135)		11.48 (66)	[8.56] (19)	12.31 (49)	9.28 (26)	11.80 (310)	13.15 (640)
Total Manufacturing	12.90 (412)	10.07 (29)	11.59 (143)	8.98 (96)	12.18 (188)	9.82 (120)	11.73 (988)	12.91 (1,840)
Total Non-Manufacturing	12.73 (801)	9.90 (76)			10.71 (63)	9.44 (40)	12.22 (997)	13.72 (8,421)
Total	12.79 (1,213)	9.95 (105)	11.62 (150)	9.05 (105)	11.81 (251)	9.72 (161)	11.97 (1985)	13.57 (10,262)

Source: Unpublished information from the Survey of Training and Education

Population: Adult employees in the labour force. The top and bottom 0.5% of the population have been removed to minimise the effects of extreme outliers on the averages.

Assumptions:

(a) To generate the estimates of hourly rates mid points were taken in reports of hours worked eg workers reported as falling in the 35-40 bracket were assumed to work on average 37.5 hours per week. Estimate of overtime were based on the assumption that overtime was paid at a penalty of 1.5 times the normal hourly rate.

(b) Numbers in brackets represent number of observations.

(c) Empty cells had fewer than 20 observations. Estimates in [] are based on fewer than 20 observations. They are only maintained here for the sake of providing indicative numbers for the clients of this work.

Appendix 3: Methodology for Study Household Expenditure Patterns

The Dataset

The Household Expenditure Survey was conducted during the 1989 financial year and surveyed 7,405 households resident in private dwellings throughout Australia. The data was collected using both personal interviews and expenditure diaries maintained by the household.

The Analysis

The analysis in Tables 1.1 and 1.2 was based on a sub-sample of households: those whose principal source of income was wages and salary. The size of this sub-sample was 3,932 households and it was weighted to provide national population estimates.

This sub-sample was divided in four ways. As mentioned earlier, two household types were constructed, a single income couple with dependants buying their home and a single person household renting privately. These two types were then split into households with gross incomes of under \$400 per week and those with incomes between \$400 and \$499 per week.

Group means were calculated for each of these groups to produce the expenditure estimates shown in Tables 1.1 and 1.2. Large capital items (such as housing extensions) were excluded so as to capture the general 'running costs' of the household. The capital component of the mortgage repayments was also excluded (though most families regard their whole mortgage repayment as their housing costs). Those items with negative expenditure for entertainment and transport were also excluded.

Appendix 4: Average Hourly Earnings for Major Occupations

Industry	Managers & admin		Professionals		Paraprofessionals		Tradespersons		Clerks		Sales etc		Plant & mach op		Labourers		TA & factory hands		Cleaners	
	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size	\$ per hr	sample size
Agriculture etc	10.29	30					10.59	18							8.56	82				
Mining			20.91	25	19.86	17	17.54	37			13.24	79	18.02	59						
Manufacturing	17.34	144	16.80	121	14.60	72	12.71	441	13.01	206			11.50	383	11.27	394	11.26	308		
Electricity etc	21.39	15	18.75	28	16.52	16	14.68	38	14.48	34			15.78	23	13.32	21				
Construction	16.99	31	17.78	17	15.65	34	12.61	201	12.08	37	13.15	145	12.85	52	11.82	51				
Wholesale Trade	16.72	91	17.05	48	15.72	23	13.52	76	12.30	156	10.35	447	11.49	61	10.23	89	10.25	28		
Retail Trade	13.61	104					11.04	178	11.45	101	12.99	60	10.11	17	9.59	86	9.46	15		
Transport, Storage & Communication	17.19	72	20.22	45	17.56	40	14.08	81	13.07	183	13.81	192	12.89	201	12.00	64				
Finance etc	18.23	130	17.49	235	15.87	38	14.17	25	13.09	446	11.88	27			11.20	115			10.70	58
Public Admin & Defence	19.69	63	18.64	132	16.09	68	12.29	44	14.28	292	11.82	140	11.53	59	10.69	68				
Health, Education etc	18.74	93	16.19	871	15.93	485	12.58	64	12.41	375	10.55	42	14.38	54	10.63	233			10.24	54
Welfare & Religious Institutions	14.65	15	11.97	59	13.76	55			11.55	37	11.37	21			7.31	23				
Recreational Service	16.46	21	15.49	37	11.86	19	10.17	11	12.94	26	10.43	141								
Restaurants Hotels	12.87	32					11.24	58	12.04	36					9.73	78			9.44	23
Personal Services							9.23	36							9.41	16				
Total	16.88	855	16.72	1651	15.71	888	12.56	1318	12.95	1952	11.71	1312	12.49	941	10.72	1346	10.99	412	10.23	195

Source: unpublished data from ABS, Survey of Training and Education, 1993