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Expert Report from Professor Sara Charlesworth and Dr Fiona Macdonald to the Shop Distributive and Allied Employees Association for use in the Four Yearly Review of Modern Awards being conducted by Fair Work Australia – Penalty Rates AM2014/305

CONTENTS

GLOSSARY

ABS	Australian Bureau of Statistics
ARC	Australian Research Council
AWALI	Australian Work and Life Index
CATI	Computer assisted telephone interviews
CSOW	Centre for Sustainable Organisations and Work, RMIT University

INTRODUCTION

1. Sara Charlesworth is an Australian Research Council (ARC) Future Fellow and Professor at the Centre for Sustainable Organisations & Work (CSOW) within the School of Management at RMIT University. She is also an adjunct Professor at the Centre for Human Resource Management & Centre for Work + Life, at the University of South Australia. As set out in her attached CV, she has a PhD in Legal Studies and significant experience as a researcher in the areas of employment regulation, low-paid work and gender equality.
2. Fiona Macdonald is a Vice Chancellor's Senior Research Fellow at the Centre for Sustainable Organisations and Work in the School of Management at RMIT University. As set out in her attached CV Dr Macdonald has a PhD in Political Science and significant experience as a researcher of employment and in conducting qualitative research.
3. This report addresses the relative impact of working on Sundays compared to Saturdays on the work-life interference experienced by employees.
4. The report is in two separate parts. The first part, prepared by Professor Charlesworth draws on the Australian Work and Life Index (AWALI) survey carried out in 2014, one of a series of AWALI surveys run since 2007. The 2014 AWALI survey used the measure of work-life interference developed by Professor Pocock, Dr Williams and Dr Skinner at the Centre for Work & Life, University of South Australia in 2007,[1] and refined in 2008.[2] The second part, prepared by Dr Macdonald, draws on follow-up telephone interviews conducted in May and June 2015 with 25 retail industry employee respondents to the 2014 AWALI survey, who had indicated they sometimes, often or always worked on Sundays and were willing to be contacted again in follow up interviews.
5. We acknowledge the assistance of Dr Natalie Skinner, Senior Research Fellow, Centre for Human Resource Management & Centre for Work + Life at the University of South Australia for her assistance with parts of the AWALI analysis. We also acknowledge Dr Richard Phillips from CSOW who assisted with the interviews with retail industry employee respondents.

Brief Summary of Key Findings

6. The AWALI survey is a large, nationally representative survey of Australian workers. It is designed to reveal patterns, trends and observations that reflect common experiences of the Australian working population. It uses a stratified random sample, which is intended to ensure the sample reflects key social and work demographics of the Australian working population. Therefore, we can have confidence that statistically significant patterns and contrasts that are observed in AWALI reflect common views, experiences and patterns of association in the Australian working population.
7. Analysis of the 2014 AWALI survey indicates a strong and consistent trend: employees sometimes, often or almost always working on Saturdays or on Sundays experience worse work-life interference than do employees who rarely or never work these hours. After controlling for working hours, the differences in average AWALI scores are statistically highly significant for both Saturday and Sunday working. There is no significant difference between retail and non-retail employees in the impact of working on Saturdays or on Sundays.

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[1] The concepts, methods, literature, measures and pre-tests underpinning AWALI are set out in Pocock, B. Williams, P. and Skinner, N. (2007) *The Australian Work and life Index (AWALI): Concepts Methodology & Rationale*, Centre for Work+Life, University of South Australia, Adelaide.

[2] Skinner, N. and Pocock, B. (2008) *Work-Life and Workplace Culture: The Australian Work and Life Index 2008* Centre for Work+Life, University of South Australia, Adelaide

8. In the 2014 AWALI survey we observe that sometimes, often, almost always working *Sundays alone or in combination with working Saturdays* is associated with worse work-life interference for employees than sometimes, often, almost always working *Saturdays and not Sundays*. After controlling for working hours, the difference in average AWALI scores between those working Sundays alone or in combination with Saturdays and those working on Saturdays alone is statistically highly significant.

9. We can be confident that these findings reflect a common pattern (or experience) of Australian employees. Different people may have different reasons or circumstances that make working on Sundays a greater work-life strain than working on Saturdays. The qualitative study was designed to investigate the nature of work-life interference for retail employees working on weekends and on Sundays in particular.

10. Interviews were undertaken in May and June 2015 with 25 retail industry employees who were respondents to the 2014 AWALI Survey. Analysis of the interviews shows that perceptions of work-life interference vary and are influenced by the particular context of each individual employee's working week and life circumstances. For example, there were a range of reasons interviewees worked on Sundays including work rosters, their availability for work and higher Sunday pay rates. Nevertheless, retail employees working on Sundays generally experienced working on Sundays as more negative in its effect on work-life interaction than working on Saturdays. Working on Sundays is perceived to interfere with relaxation and is described as isolating or excluding people from 'life'. This work-life interference had ripple effects, impacting on families and on relationships with friends.

PART A: REPORT OF 2014 AWALI SURVEY ANALYSIS

THE 2014 AWALI SURVEY: AN OVERVIEW

The AWALI Measure

1. For the purposes of the AWALI measure, 'work' is defined as paid work. 'Life' is defined as the activities outside paid work including activities in the household and with friends, family and community; care activities including self-care and care of others; and community, sporting and other unpaid, voluntary activities. In this way, the definition of 'life' subsumes 'family' issues.[3]
2. AWALI measures two dimensions of work-life interaction: firstly, the impact of work on respondents' capacity to satisfactorily engage in the activities and responsibilities of the non-work sphere (which is termed a 'general interference' effect); and, secondly, the time available to spend on activities outside work (which is viewed as a 'time strain' effect).[4] In sum, AWALI measures perceptions of work-life interaction along five dimensions, focussing on:
    - 'General interference' (i.e., the frequency with which work interferes with responsibilities or activities outside work);
    - 'Time strain' (i.e., the frequency with which work restricts time with family or friends);
    - Work-to-community interaction, measuring the frequency with which work affects workers' ability to develop or maintain connections and friendships in their local community;
    - Satisfaction with overall work-life 'balance'; and
    - Frequency of feeling 'rushed or pressed for time'.
3. The AWALI measure brings together these five indicators of work-life interaction to arrive at an overall work-life index that is scaled from 0 (best work-life interaction) to 100 (worst work-life interaction). The work-life index has a satisfactory internal consistency or reliability (Cronbach's α (alpha) = .82). In 2014, the average AWALI score was 42.1. The median AWALI score was 40.0 (the middle score above which 50 per cent of respondents' scores fall, and below which fifty per cent fall). Therefore, scores above the average of around 42 indicate a work-life interference that is worse than average, and scores below this level indicate a better than average work-life relationship.[5]

Background to the 2014 AWALI survey

4. The AWALI surveys in 2007, 2008, 2009 and 2010 were funded through an Australian Research Council (ARC) Linkage grant in partnership with the South Australian (through SafeWork SA) and Western Australian Governments (through the former State Health Advisory Committee on Work Life Balance). In 2008, the Victorian Government (through Industrial Relations Victoria) also provided additional support to the 2008 AWALI survey. The 2012 and 2014 AWALI surveys were also funded by an ARC Linkage grant in partnership with the SA government (through SafeWork SA) and the Australian Government (through the Department of Education). Professor Barbara Pocock has been the lead chief investigator on all the AWALI projects.
5. All AWALI surveys contain a core set of items relating to employment and social demographics, the work-life index items and additional sets of questions on one or two particular themes. The

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[3] Pocock et al. (2007), p 9.
[4] Skinner, N. and Pocock, B. (2008), p. 15.
[5] Skinner, N. and Pocock, B. (2014) *The Persistent Challenge: Living, Working and Caring in Australia in 2014. The Australian Work and Life Index*, Centre for Work+Life, University of South Australia, Adelaide, p. 8.

2014 report focused in particular on flexibility, unsocial work hours, caring responsibilities other than parenting, and flourishing (positive mental health). The last AWALI survey to focus on unsocial hours was the 2008 AWALI survey on which my evidence to the 2012 Interim Modern Award Review was based.

6. AWALI 2014 is a nationally representative survey of 2,690 employed persons (2,279 employees and 411 self-employed). Newspoll conducted the survey using computer assisted telephone interviews (CATI) over four weekends in March 2014. . In accordance with standard Newspoll practice, respondents were selected by means of a random sample process which includes a quota set for each capital city and non-capital city area, and within these areas a quota set for statistical divisions or subdivisions. Respondents answered both the core questions and an additional set of items relating to unsocial work time were assessed by the reported frequency (never, rarely, sometimes, often, almost always) with which respondents worked on Saturdays, Sundays or evenings/nights past 9pm (three separate questions). To ensure a nationally representative sample, the survey data was weighted by relevant Australian Bureau of Statistics (ABS) population data on age, highest level of schooling completed, sex, and area (capital city and balance of state) to adjust for differences in the AWALI sample and the general Australian population on these key demographics.

Explanation of analysis & statistical conventions followed in analysis of AWALI 2014 & limitations of the analysis

7. In the analysis of the 2014 AWALI survey data undertaken in this report, we have confined the sample to employees. We excluded self-employed workers as they are more likely than employees to have control over their working hours and to be able to reschedule their hours if required. This means the dynamics of the interaction of work and non-work activities are likely to be different for self-employed and employees.[6]

8. The analysis follows the social science threshold convention, which sets a minimum of 20 respondents that must be in a cell for that figure to be considered reliable.[7] Estimates that do not meet this threshold requirement are marked by an asterisk indicating that this figure should be interpreted with caution and are not used in comparative analysis between groups.

9. All comparisons discussed in this report are statistically significant, unless otherwise noted. A p value where $p < 0.05$, is considered 'statistically significant' (that is, we can be 95% sure that these results did not occur by chance). A p value where $p < 0.001$, is considered 'statistically highly significant' (where we can be 99% sure that these results did not occur due to chance). The p values in the analysis for this report are provided in the relevant tables in Appendices 1-3.

10. Mean scores are provided for the AWALI index. Mean scores *are not* percentages. In general, average AWALI scores that are below or above the average for all employees indicate better or worse outcomes in terms of work-life interaction. In particular, as is the case in this report, any differences between average AWALI scores for two groups, such as between those who sometimes, often or almost always work on Saturdays and Sundays and those who never or rarely do so, can be assessed in terms of statistical significance.

11. As work hours have an impact on work-life interference (as hours increase work-life interference also tends to increase), work hours have been entered as a covariate in some analyses where the average AWALI scores of retail employees are compared with those for

[6] Skinner and Pocock (2014). p.9.

[7] This threshold is used in the HILDA study. See Heady, B., Warren D. and G. Harding (2006), *Families, Incomes and Jobs: A Statistical Report of the HILDA Survey*, Melbourne: Institute of Applied Economic and Social Research, University of Melbourne.

employees from other industries. This means that the effect of work hours on the index scores is removed, or 'controlled', to observe the effect of, for example, working on Saturdays and/or Sundays on AWALI scores. This can be important when comparing retail employees with employees from other industries, as a greater proportion of retail employees work on a part-time basis than do employees generally. This type of analysis essentially asks the 'what if' question of how work-life interference would differ between groups if they worked the same hours. For example, 'what if those who worked in retail and those who worked in other industries worked the same hours, would there be any difference in their work-life interference?'[8]

12. There are three general qualifications to the analysis in this report.

- While the AWALI 2014 survey is generally representative of the relevant Australian populations at the time it was run, the survey was not designed to be specifically representative of retail industry employees.
- In the analysis of the 2014 AWALI survey, there were a total of 223 retail industry employee respondents. Of these, 127 worked sometimes, often or almost always on Saturdays and 103 worked sometimes, often or almost always on Sundays. These smaller groups reduce the explanatory power of any analysis that focuses specifically on comparing them. That is, a small sample size reduces the capacity to observe a statistically significant contrast if it exists. However, as discussed further below, there was no statistical difference between the degree of work-life interference experienced by retail employees in respect to the relative degree of work-life interference of working Sundays and/or Saturdays when compared to all employees. Thus it is reasonable to assume that retail employees will have similar work-life interference patterns in respect of Sunday and Saturday working to all employees in the survey.
- Telephone surveys like the AWALI survey have strengths and weaknesses. They allow fast data collection and increased quality through interview controls and clarifications, and they permit data collection from individuals regardless of their reading and writing ability. A system of call backs and appointments, to facilitate a higher response rate and inclusion of responses from people who do not spend a great deal of time at home, means that this possible distortion is minimised in AWALI. However, the AWALI survey, as many other CATI surveys, is likely to be biased against those who do not have a telephone at home.[9]

SUMMARY OF FINDINGS: THE IMPACT OF WORKING SUNDAYS AND/ OR SATURDAYS ON WORK-LIFE INTERFERENCE

13. Analysis of the 2014 AWALI survey indicates a strong and consistent trend: employees sometimes, often or almost always working on Saturdays or on Sundays experience worse work-life interference than do employees who rarely or never work these hours. The differences in average AWALI scores are statistically highly significant for both Saturday and Sunday working.
14. Of the 223 employees working in the retail industry, those who sometimes, often or almost always working on Saturdays had a higher average AWALI score than those who rarely or never work on Saturdays. This difference was not statistically significant. However those who sometimes, often or almost always working on Sundays did have a higher average AWALI score than those who rarely or never work on Sundays and this difference was statistically highly significant.

[8] Skinner and Pocock (2014), p. 9.
[9] Skinner and Pocock (2014), p. 9.

15. When hours are controlled for, working on either or both Saturdays and Sundays was significantly associated with higher AWALI scores for employees. Working in the retail industry when compared to working in other industries had no significant effect on average AWALI scores. This means that the influence of working Saturdays or Sundays on work-life interference was *not* affected by whether or not employees worked in the retail sector.

16. Further analysis undertaken to compare any differences in work-life interference outcomes for employees working Sundays and Saturdays shows that sometimes, often, almost always *working Sundays alone or in combination with working Saturdays* is associated with statistically significant higher AWALI scores than sometimes, often, almost always *working Saturdays alone*.

17. An analysis of the five individual measures that comprise the AWALI index analysis indicates that employees who sometimes, often or almost always work on Saturdays are at least *twice as likely* as those who do not, to report that their work often, or almost always, interferes with their responsibilities or activities outside of work *and* that their work keeps them from spending the amount of time they would like with family or friends. They are also *much more likely* to report that their work often or almost always interferes with their ability to develop or maintain connections and friendships in their community, and that they are not very, or not at all, satisfied with the balance between their work and the rest of their life. All these relationships are statistically highly significant.

18. In respect to Sunday working, employees who sometimes, often or almost always work on Sundays are *much more likely* than as those who do not, to report negative responses to all five individual AWALI measures, including being almost always, or often, feeling rushed and pressed for time when asked to think about their life 'right now'. All these relationships are statistically highly significant or at least significant.

19. Retail industry employees who sometimes, often or almost always work on Saturdays were *more than three times* as likely as those who do not to report than their work almost always, or often, interferes with their ability to develop or maintain connections and friendships in their community. This difference is statistically highly significant.

20. Retail industry employees who sometimes, often or almost always work on Sundays were around *three times as likely* as those who do not to report that their work almost always, or often, interferes with their ability to develop or maintain connections and friendships in their community and that their work almost always, or often, keeps them from spending the amount of time they would like with family of friends. They were also *twice as likely* as those who do not to report that their work almost always, or often, interferes with their ability to develop or maintain connections and friendships in their community. All these differences are statistically highly significant.

21. An analysis of whether average AWALI scores for weekend work had changed between the 2008 AWALI survey and the 2014 AWALI survey was undertaken. This comparison uses the 2008 AWALI and 2014 AWALI means for those sometimes, often or almost always working on the weekend. There was *no significant difference* between average AWALI scores in 2008 and 2014 for employees working sometimes, often or almost always on the weekend.

DETAILED ANALYSIS: THE IMPACT OF WORKING SUNDAYS AND/ OR SATURDAYS ON WORK-LIFE INTERFERENCE

22. The analysis of the weighted AWALI 2014 sample population draws on the responses from 2316 employees of whom:

- 47.3% worked on Saturdays (sometimes, often, almost always);
- 33.8% worked on Sundays (sometimes, often, almost always);

- 61% of the 223 employee respondents in the retail industry worked Saturdays (sometimes, often, almost always);
- 46.1% of the 223 employee respondents in the retail industry worked Sundays (sometimes, often, almost always).

23. Initial analysis of the AWALI 2014 survey indicated that employees generally and retail employees in particular who sometimes worked Saturday or Sunday had similar AWALI scores to those working often or almost always on those days, scores which were consistently higher than those who never or rarely worked those days.[10] The analysis that follows therefore looks at differences between two groups – those who never or rarely worked on Saturdays or Sundays and those who sometimes, often or almost always worked on those days.[11]

All employees

24. Based on the AWALI measure of work-life interference where higher scores indicate worse work-life interference, analysis showed:
    - Those employees who sometimes, often or almost always, work Saturdays have an average AWALI score of 47.06 compared to a score of 37.20 for those who do not. This difference is statistically highly significant;
    - Those employees who sometimes, often or almost always, work Sundays have an average AWALI score of 50.04 compared to a score of 37.69 for those who do not. This difference is statistically highly significant.
25. Looking at the five individual measures of work-life interference that make up the AWALI index,[12] those who sometimes, often, or almost always, work *Saturdays* are significantly more likely than those who never or rarely work Saturdays, to say:
    - Their work almost always, or often, interferes with their responsibilities or activities outside work (29.3% compared to 13.7% for those who never, rarely or sometimes work Saturdays). This difference is statistically highly significant;
    - Their work almost always, or often, keeps them from spending the amount of time they would like with family of friends (33.7% compared to 17.2% for those who never or rarely work Saturdays). This difference is statistically highly significant;
    - Their work almost always, or often, interferes with their ability to develop or maintain connections and friendships in their community (25.8% compared to 11.3% of those who never or rarely work Saturdays). This difference is statistically highly significant;
    - Thinking about their work right now, 21.4% said they are not very, or not at all, satisfied with the balance between their work and the rest of their life compared to 12.7% who never, rarely or sometimes work Saturdays. This difference is statistically highly significant.
26. Those who sometimes, often, or almost always, work Saturdays are more likely than those who never or rarely work Saturdays to say that ,thinking about their life in general, they almost always, or often, feel rushed and pressed for time (53.6% compared to 49.8% of those who never or rarely work Saturdays). However this difference is not statistically significant

[10] Appendix 1, Tables 3-1 and 3-2.
[11] Appendix 1, Tables 4-1 and 4.2.
[12] Appendix 1, Tables 5-14

27. Those who sometimes, often, or almost always, work *Sundays* are significantly more likely than those who never or rarely work Sundays, to say:

- Their work almost always, or often, interferes with their responsibilities or activities outside work (34.5% compared to 14.2% for those who never, rarely or sometimes work Sundays). This difference is statistically highly significant;
- Their work almost always, or often, keeps them from spending the amount of time they would like with family of friends (36.9% compared to 19.4% for those who never or rarely work Sundays). This difference is statistically highly significant;
- Their work almost always, or often, interferes with their ability to develop or maintain connections and friendships in their community (28.7% compared to 12.8% of those who never or rarely work Sundays). This difference is statistically highly significant;
- Thinking about their life in general, 55.4% said they almost always, or often, feel rushed and pressed for time compared to 49.8% of those who never or rarely work Sundays). This difference is statistically significant;
- Thinking about their work right now, 23.7% said they are not very, or not at all, satisfied with the balance between their work and the rest of their life compared to 13.3% who never, rarely or sometimes work Sundays. This difference is statistically highly significant.

Retail industry employees

28. In comparison with other employees in the 2014 AWALI survey, retail industry employees were more likely to be:[13]

- Female: 57.8% compared to 47.7% for other industries
- Younger: 33.9% were aged 18-24 years compared to 12.7 % for other industries
- Sales workers: 70.3% compared to 2.7% for other industries
- Casual: 35.1% compared to 15.8% for other industries
- Part-time: 61.4% compared to 31.2% for other industries
- Working fewer hours: 21.7% worked 1-15 hours a week compared to 9.2% for other industries

29. However retail employees were just as likely as other employees to have dependent children: 40.4% compared to 45.0% for other industries.

30. Based on the AWALI index of work-life interference where higher scores indicate worse work-life interference, analysis of data for retail employees indicates:

- Those who sometimes, often, or almost always work Saturdays have an average AWALI score of 42.39 compared to 36.36 for those who do not. However this difference is not statistically significant.
- Those who sometimes, often, or almost always work Sundays have an average AWALI score of 45.30 compared to 34.44 for those who do not. This difference is statistically highly significant.

31. Examining the five individual measures of work-life interference that make up the AWALI index for retail industry employees is not possible because of small cell sizes in the most of the cross tabulations.[14]:

[13] Appendix 1, Tables 25-31.
[14] Appendix 1, Tables 15-24.

Comparing the impact of working Sundays and/or Saturdays on the extent of work-life interference

32. We can compare the impact of working weekends on work-life interference for retail employees and employees who work in other industries.[15]

33. When controlling for hours worked, sometimes, often and almost always working *Saturdays* was significantly associated with higher AWALI scores (45.885) than not working these times (38.166). There is no significant difference between retail and non-retail employees indicating that the negative association between working Saturdays and higher work-life interference is equivalent for retail and non-retail employees. This means that the influence of working Saturdays on work-life interference was *not* affected by whether or not employees worked in the retail sector.

34. Controlling for work hours, sometimes, often and almost always working *Sundays* is associated with higher AWALI scores (49.609) than not working these times (37.325). There is no significant difference between retail and non-retail workers (controlling for work hours) indicating that the negative association between working regular Sundays and higher work-life interference is equivalent for retail and non-retail employees. Thus the influence of working Sundays on work-life interference was *not* affected by whether or not employees worked in the retail sector.

35. To enable a comparison of the effect of working Sundays compared to Saturdays on work-life interference, all employees *excluding* those who never or rarely work Saturdays and/or Sundays were selected. A univariate analysis that also controlled for hours worked was run for the group working sometimes, often or almost always on Saturdays and/or Sundays (n=1174).

36. The analysis of covariance showed that sometimes, often, almost always working on Sundays and/or Saturdays was significantly associated with higher average AWALI scores when controlling for hours worked than rarely or never working Sundays and/or Saturdays. The adjusted AWALI scores controlled for hours are:

- 41.691 for those who sometimes, often, almost always work Saturdays but not Sundays
- 48.824 for those who sometimes, often, almost always work Sundays but not Saturdays
- 50.322 for those who sometimes, often, almost always work both Sundays and Saturdays

37. To investigate whether the differences between these average AWALI scores were significant, a series of post hoc tests were undertaken. These tests showed that sometimes, often, almost always working *Sundays alone or in combination with working Saturdays* is associated with higher AWALI scores than sometimes, often, almost always working *Saturdays and not Sundays.* These comparisons are as follows:

- AWALI scores for those *sometimes, often or almost always working Sundays but not Saturdays* were significantly higher than those for employees *sometimes, often or almost always working Saturdays but not Sundays.*
- AWALI scores for those *sometimes, often or almost always working Sundays and Saturdays* were significantly higher than those for employees *sometimes, often or almost always working Sundays but not Saturdays.*
- However there was *no significant difference* in average AWALI scores *between those working Sundays but not Saturdays and those working Saturdays and Sundays.*

[15] Appendix 2, Tables 1-4.

DIFFERENCES BETWEEN RELEVANT AWALI 2008 & AWALI 2014 SURVEY FINDINGS

38. We were asked to compare key 2008 and 2014 AWALI survey findings.[16] The 2008 Survey was the only AWALI survey to ask respondents about working unsocial hours before the 2014 AWALI survey.
39. As the 2008 AWALI survey did not differentiate between working on Saturdays and Sundays, the AWALI 2014 variables for Saturday and Sunday working were aggregated to enable a comparison. It should be noted that in the 2008 survey of 2444 employees, only 1194 employees were asked about working unsocial hours. Thus the 2008 sample was smaller in number than the 2014 sample.
40. The proportion of employees who worked weekends in both 2008 and 2014 were broadly similar. In 2008 it was 55.3% and in 2014 it was 50.7%. The 2008 sample of retail industry employees (n=118) was smaller than the 2014 sample (n=223) and the proportion of retail employees in both samples who sometimes, often or almost always worked on the weekend was broadly similar. In 2008 it was 64.9% and in 2014 it was 69.0%.
41. An analysis of whether average AWALI scores for weekend work had changed between the 2008 AWALI survey and the 2014 AWALI survey was undertaken. This comparison uses the 2008 AWALI and 2014 AWALI means for those sometimes, often or almost always working on the weekend.
42. Unpaired t test results indicated that there was *no significant difference* in average AWALI scores in 2008 (46.1503) and 2014 (47.1157) for employees working sometimes, often or almost always on the weekend.

DECLARATION OF PROFESSOR SARA CHARLESWORTH

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Commission

Signed:

Professor Sara Charlesworth

26 August 2015

[16] Appendix 3, Tables 1-5.

PART B: REPORT OF 2014 AWALI QUALITATIVE ANALYSIS

SUMMARY OF AWALI QUALITATIVE ANALYSIS

1. The qualitative study was designed to investigate the nature of work-life interference for retail employees working on weekends and on Sundays in particular. The strength of qualitative research in this case is to reveal the complex issues underlying attitudes, preferences and behaviours including shedding light on contexts, motivations and explanations.[17]

2. Through in-depth telephone interviews with 25 AWALI 2014 survey respondents the research explored how work-life interference associated with working on Sundays is similar to or different from interference associated with working on Saturdays. Interviews explored the experiences, understanding and attitudes underlying the reported work-life interference. The purpose of the interviews was not to find out if work-life interference exists but to generate knowledge about the nature of any work-life interference experienced by retail workers. The research also explored the role and significance of penalty rates in retail employees' attitudes and decisions about working on Sundays.

3. The 25 people interviewed were sourced from the population of 81 AWALI 2014 survey respondents who were retail employees stating they 'sometimes', 'often' or 'always' worked on Sundays. The sample size of 25 was considered to be large enough to reach 'saturation', the point at which collecting new data would not shed any further light on the specific issue under investigation.[18] All 25 employees interviewed regularly worked on Sundays in their retail jobs and 23 of them also regularly worked on Saturdays. The key findings are summarised below.

4. While perceptions of work-life interference varied and were influenced by the particular context of each individual's working week and life circumstances the view that Sunday is different and not a regular work day was held by almost all the retail employees interviewed. Sunday was also viewed as different from Saturday and, in general, employees regarded working on Sundays as more negative in its effect on work-life. This was the case for employees across age groups, including young people who were combining study and part-time retail employment.

5. Underlying the idea that Sunday is different from Saturday in negatively affecting work-life interaction is the view that, for most of the community, Sunday is a day off, a 'free' day and/or a 'family and friends' day. The nature of work-life interference experienced by employees reflects this view. Sunday is perceived to interfere with relaxation, and working on Sundays is described as isolating or excluding people from 'life'. Work-life interference had ripple effects, impacting on families and on relationships with friends.

6. The higher hourly pay received on Sundays is important to employees and it was cited more than any other factor when employees were asked if they preferred to work on Sundays or not and as the most positive aspect of working on Sundays. Some young people combining study and work reported less work-life interference from Sunday work than reported by other employees. At the same time these young people described the trade-off for working on Sunday as the higher pay.

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[17] Flyvbjerg, B. (2006), 'Five misunderstandings about case-study research', Qualitative Inquiry, vol. 12, no. 2, pp. 219-45; Yin, R. (2003), Case study research: design and methods, 3rd ed.n, Sage, Thousand Oaks, Calif.
[18] Morse, J. M. (1995), 'The significance of saturation', *Qualitative Health Research*, vol. 5, no. 2, p. 147.

7. Qualitative data, as captured by the main themes coming out of follow-up interviews with 25 retail employee respondents to the AWALI survey, complements the AWALI observations regarding common patterns in the workforce. The interview data provides insight into the range and nuance of individual circumstances that can contribute to this common experience that from a work-life balance perspective working Sundays is qualitatively different, and significantly more difficult, than working on a Saturday.

QUALITATIVE RESEARCH DESIGN AND CONDUCT

8. The qualitative study was designed to investigate the nature of work-life interference for retail employees working on weekends and on Sundays in particular. The Business College Committee Human Ethics Advisory Network gave ethics approval for the qualitative research.

9. Through in-depth telephone interviews with 25 AWALI 2014 survey respondents the research explored how work-life interference associated with working on Sundays is similar to or different from interference associated with working on Saturdays. The research also explored the role and significance of penalty rates in retail employees' attitudes and decisions about working on Sundays.

Research participants and sample size

10. Research participants were sourced from the AWALI 2014 survey respondent population. Specifically, the 25 participants were sourced from the population of 81 AWALI 2014 survey respondents who were retail employees stating they 'sometimes', 'often' or 'always' worked on Sundays and who provided a telephone number and indicated their willingness to participate in further research into work-life issues. A sample size of 25 was considered to be large enough to reach 'saturation', the point at which collecting new data would not shed any further light on the specific issue under investigation.[19]

11. People in the group of 81 were telephoned in no particular order and the interviewees were the first 25 people with whom telephone contact was made and who agreed to participate in the research. Five people with whom contact was made declined to be interviewed. Appendix 4 provides basic demographic and employment details for the research participants.

The interviews

12. The research interviews were designed to explore retail employees' experiences and perceptions of work-life interference associated with weekend work and differences and similarities for Saturday and Sunday work. Specifically, the interviews were designed to investigate further the AWALI survey research finding that employees regularly working on Sundays experience more work-life interference than people not regularly working on Sundays. Interviews explored the experiences, understanding and attitudes underlying the reported work-life interference.

13. Qualitative inquiry using small samples is a suitable method where the purpose is to shed light on an observed phenomenon in the population, as in this case. The investigation of experiences in a small number of cases lends itself best to the matter of exploring 'how' and 'why' rather than 'what' and 'who' questions.[20] The strength of qualitative research in this case is to reveal the complex issues underlying attitudes, preferences and behaviours including shedding light on contexts, motivations and explanations. Thus the purpose of the interviews was not to find out if work-life interference exists but to generate knowledge about the nature of any work-life interference experienced by retail workers, specifically as it relates to working on Sundays and any differences between working on Sundays and working on Saturdays and other days. So,

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[19] Morse 1995.
[20] Yin 2003, p. 5; see also Flyvbjerg 2006.

while it could be anticipated that some research participants may report little work-life interference or disadvantage from working on Sunday, the interviews were nevertheless designed to probe whether and how Sunday working was experienced or understood to be different from working on Saturdays or other days.

14. The interviews were semi-structured and comprised a series of mainly open-ended questions designed to explore individual experiences of and attitudes to working on weekends and on Sundays as these related to the work-life interaction. Targeted questions explored whether and how working on Sundays is perceived to interfere with responsibilities and activities outside work and to interfere with individuals' ability to develop or maintain connections and friendships. These questions were designed to explore those aspects of work-life interference that were found in the AWALI survey to be greater for people regularly working on Sundays than for other workers. Further open-ended questions explored the role of penalty rates in attitudes towards Sunday work. The interview schedule is provided as Appendix 5of this report.

15. Telephone interviews ranged from eight to 25 minutes in duration. With participants' consent all interviews were audio-taped and the recordings were transcribed by a professional transcription service. We adopted a 'grounded' approach to the analysis of the interview material, involving systematically seeking themes in the data and organising the findings in relation to these themes.[21]. In the interview excerpts provided in this report, research participants are quoted verbatim other than for the inclusion of additional words in square brackets where this is necessary to provide clarity.

The retail employee interviewees

16. The 25 retail employees interviewed were 16 women and nine men. Five were employed full-time in their retail jobs and the other 20 employees worked part-time hours ranging from five to 32 hours a week. Fifteen of the employees were in the age group 18 to 24 years and the other ten employees were aged from 25 to 64 years. Eight of those aged 18 to 24 years were students who were combining their part-time retail employment with full-time university studies and the other seven were not students. Of the seven young people working part-time and not studying only one was a full-time employee. Three women were combining part-time retail work with caring for pre-school aged children. Ten employees were casual and 15 were permanent employees with paid leave entitlements.

17. All the employees regularly worked on Sundays in their retail jobs with the exception of one who worked every Sunday during the summer only and another who had worked every Sunday until very recently when he changed jobs. All but two of the employees also regularly worked on Saturdays, while one occasionally worked on Saturdays and another never worked on Saturdays. Just over half (13) of the 25 employees worked every Sunday, one employee worked three out of every four Sundays, seven employees worked every second Sunday (or two Sundays a month) and another three worked on one Sunday a month.[22] Four employees did not receive penalty rates and the other 21 were paid penalties for working on Sundays, 16 being paid time and half and the other five being paid double time.

RESEARCH FINDINGS

18. While there was a diversity of circumstances, experiences, preferences and attitudes among the 25 employees many common themes emerged through the interviews. In presenting these findings we have focussed on these common themes while also providing many examples of individuals' stories to illustrate the underlying diversity. The focus of the research and the findings is work-life interference associated with working on weekends and, in particular, with

[21] Strauss, A. and Corbin, J. (1990) *Basics of qualitative research: techniques and procedures for developing grounded theory*, Sage Publications, Thousand Oaks, Calif

[22] The employee who recently stopped working on Sundays is counted here.

working on Sundays. However, in the first part of the findings we present some of the contexts for people's Sunday work as this provides important background for understanding individuals' perceptions and experiences of work-life interference.

19. The findings are presented as follows: First, we explore retail employees' reasons for working on weekends and for working on Sundays. Then we consider how they feel about working on weekends and examine the factors that emerged in interviews as important in shaping attitudes and feelings toward working on Sundays. We then examine the nature of work-life interference as it is perceived and experienced by the retail employees. We begin this examination by outlining work-life interference associated with Sunday and weekend work as it is described and understood by the employees. In this section we also consider how much work-life interference matters to the employees and the apparent reasons for and factors associated with this. Following that we ask if Sunday is understood to be different from Saturday in regard to work and life and if so, in what ways does it differ? We explore two facets of life that emerged very strongly in interviews as being at the heart of employees' perceptions of work-life interference associated with Sunday work: Sunday as a day of rest or relaxation and Sunday as a day for spending time with family and friends. In reporting our findings we also examine the role of penalty rates, which emerged as an important factor in individuals' attitudes, perceptions and reported decisions.

Why do people work on Sundays?

20. Some employees we interviewed were very clear that the only reason they worked on weekends and on Sundays was because it was a requirement of their employer that their rostered hours included regular weekend work. Others said they worked on weekends because this was the time they had available for work due to Monday to Friday study or family commitments. Some of this second group reported that they could have made up their work hours without working on Sundays but were required to work on Sundays as part of their roster. Others actively sought out Sunday work in preference to Saturday work because they wanted the higher hourly pay rate.

21. When asked if they preferred to work on Sunday rather than some other day the most common responses from employees were about the higher pay rate they received, whether they answered 'yes' or 'no'. Many responses were variants of 'No, it was the pay rate' (IV13), 'Cos we get extra pay' (IV22) and 'Ah, only for the money. If I didn't get paid extra for Sundays, I wouldn't be happy about working weekends' (IV20), 'Personally I offered to for the money. It's time and a half on Sundays' (IV02), 'For the pay, the extra pay' (IV04).

22. While the higher hourly pay rate figured strongly in responses, preferences and attitudes towards Sunday work were shaped by multiple contexts. After the pay, a common response - especially from young people who were not studying, from experienced employees and from older workers - was about lack of choice or other options, mainly because weekend work was a requirement of their employment. When asked about the main reason they worked on weekends some people talked about 'the roster'. Two of these people said they had the option of not working on weekends but that this would involve the loss of their senior roles. For example, while one young woman responded that it was her choice to work in Sundays, she explained that she made the choice to do so because there were no shifts available for her to work in her supervisory role during the week and she didn't want to lose that role (IV07). Several echoed another woman's comment that: 'I don't think I could say that it's an option. I think if you cannot work Sundays they probably wouldn't want you to be there' (IV09). Another woman said 'What do I like (about working on Sundays)? Not a lot, to be honest with you. I accept that that's something that they require of us; it doesn't mean that I enjoy it' (IV19).

23. For employees combining employment with study working on the weekend was often the easiest option in the light of the multiple demands on their time. The higher pay rate on Sunday

was also a factor in this. Retail jobs did not offer employees the flexibility to renegotiate their weekday shifts every semester when their university timetables changed. Working on weekends was one way to get around this problem and Sunday shifts provided better pay for the same number of hours of work.

How do they feel about working on Sundays? Why is this?

24. The most commonly cited positive aspect of Sunday work was the extra pay while a key negative aspect of Sunday work for many people was the loss of Sunday 'free' time, as for this young man.

    IV20 And I think a lot of people who don't work in retail don't realise what sort of sacrifice, retail and hospitality staff, what kind of, you know, people have to give up to work weekends. And I think unless you work, like I think unless you have to do it you don't really understand.

    Int: Okay. And what is it do you think? What are you mainly giving up?

    IV20: Just your free time and your life really.

25. Work aspects, workplace factors, home and family circumstances and other life activities and responsibilities combined to shape how people felt about working on Sundays. As suggested by the discussion in the section above one important factor shaping how people felt about working on Sundays was whether or not they had any say in working on this day. How employees felt about their weekend work was also often dependent on whether or not they had any flexibility with their working time. Many we spoke to did not have much flexibility, either because of their employers' requirements or because they felt they could not afford to lose the extra pay. This was the case for this young woman who was explaining why she worked on Sundays:

    The pay, the extra pay. So I think I get time and a half for Sunday so if I don't work on a Sunday I lose a lot of money. Even if I'm sick or if I need to do something on a Sunday, like, if I've got a wedding or something I'll always try and work on the Sunday because I only get paid the base rate (on other days). (IV04)

26. In another example, one young man who worked on weekends less frequently than most employees we interviewed, worked only one Saturday and one Sunday each month. Compared with many others he had considerable flexibility about which weekends he worked and he relied on this flexibility to be able to participate in regular sporting competitions. He only had part-time hours' work and his Sunday work (for which he received a penalty rate) was an important source of pay for him. He valued the fact that he was usually able to swap his Sunday shift for another Sunday if he had an event on. He said

    'If I can plan in advance then I'll ask to swap a shift. I'll only take leave if I absolutely have to (IV11).

27. Other employees could take paid leave to attend weekend events if they had advance notice. However, using up one's paid leave to get weekends off was not necessarily a great option, as suggested by one young man who said

    '... well my other half doesn't work weekends. So it makes it very hard, say if we want to go away or book a short holiday or something, I have to take an annual leave day for it. So basically I need to use up my leave just to have some form of life' (IV20).

28. Some employees could swap work days. Those who had to miss a day's pay or forgo penalty rates by swapping their weekend work day for another day of the week sometimes struggled to make the decision to take time off or struggled to manage the consequences of losing the extra pay.

29. The complex contexts shaping employees' preferences and attitudes to weekend work are also suggested by another young woman's comments. This woman said she didn't like working on weekends because she didn't get to see her family. However, she also said she didn't mind working on weekends as she had to do so less often than most of her colleagues. She was only rostered to work on either Saturday or Sunday which she felt was 'a good deal' compared to 'some of the poor people at work who have to work every day of the weekends'. She felt 'lucky' as her manager had rostered her for less weekend work as an exception to the rule because she has a young family. (IV06).

30. The complexity of preferences and attitudes to weekend work when it involves combining paid work with family responsibilities is also evident in the comments of a second woman with young children. Asked if she liked working on Sundays this employee said 'Yes and no, in the job aspect, yes I do because of the increased pay'. However, she didn't like 'being away from my family when they're all at home together'. When asked if she would prefer to work on some other day instead if there was work available she first said 'yes' then said 'no' because it would mean she earned less money and would also have to pay for her children to go to day care while 'now they get a full day with their dad' (IV03).

31. The work context itself is also an important factor in employees' responses to questions about their feelings and attitudes towards working on weekends. One young woman said she liked working on Sundays because 'there's a nice group of co-workers that always seem to fall on a Sunday shift' (IV15). Others didn't like working on Sunday because it was busy and they worked harder on Sundays. Others liked it because it was busy and some didn't like it because it was quiet and time went too slowly.

32. People offered other reasons for disliking weekend and Sunday work which directly concerned the ways in which work interfered with other aspects of their lives. This is the focus of the discussion below.

What is work-life interference about and how much does it matter?

'It gets to you after a while. You feel like you're missing what's going on around you'. (IV21)

33. While employees spoke of specific activities and responsibilities that were affected by their weekend work they also spoke of weekend work and, more particularly of working on Sundays, as isolating or excluding them from a 'life' they believed people who don't work weekends are able to enjoy. This is illustrated by the following exchange with a young woman who works 25 hours' a week in her retail job:

Int: So how often do you work on Sundays?

IV17: Once a month. I don't like Sundays.

Int: Okay, why don't you like Sundays?

IV17: I don't know. It just feels [pause]. Because once I left school and turned 18 I was like I kind of just want a weekend off, like, so I can live a life.

34. Another young woman combining study and part-time employment said she likes working on Sundays because there is a 'more relaxed vibe' in the store in which she works as it is 'a mother and daughter or family shopping day'. However, the fact that it was a family day was also the reason she didn't like working on Sundays and she said 'If I had the choice I would not be working Sundays'. She explained this as follows:

Int: And what is it that you don't like about working on Sundays?

IV08: That I have to actually work [laugh].

Int: Right.

IV08: I could be a customer.

Int: And is that a thing about Sundays in particular or about any day you work?

IV08: It's Sunday. Most people have Sundays off, everyone's kind of out for the day.

35. In a third example a woman aged in her 40s explained how working on weekends means she always has to organise her life around her work. She wanted to be able to have a weekend like 'everyone else'.

Int: Does (working on weekends) interfere with your responsibilities or activities outside work?

IV09: Well I have to create my lifestyle around my work, rather than the other way around.

Int: So what does that mean you have to do? What do you do differently?

IV09: Well, any plans that I do for the weekend I have to make those plans for a weekend that I don't work. So I sort of have to work around work, rather than work around my life.

Int: Right, okay.

IV09: I have to plan that those activities fall on a weekend that I don't work.

36. An individual's experience of work-life interference associated with working on weekends was something that could have ripple effects for the whole family. For example, one woman spoke of being unable to take her daughter to regular swimming lessons when she had to work on weekends and so her daughter was unable to attend lessons on those weeks. Another woman said the family now only got together fortnightly for a Sunday night meal as she worked every second Sunday. A third woman explained how her own weekend work dictated her young teenage daughter's weekend social life. She said her daughter couldn't invite friends over on the weekend because she, the mother, would not be home. She also said she was too tired after work for her daughter to have friends over on the weekends she worked. Her daughter's friends had to come over on weekends when she was not working.

37. A handful of employees experienced little work-life interference from working on weekends or said they experienced interference but that it did not matter much. Among them was a woman in her 50s who worked full-time in a senior role and whose partner also worked on weekends and shared the same two days off work during the week. This woman said:

> Some Sundays, it would be nice to have the odd Sunday off, you know, if you've got a Christening to go to or anything like that but on the whole, it doesn't really faze me; one day is the same as the next. I have Thursday, Friday off and that's not bad. (IV05)

38. Others were a few university students combining part-time work and study. Unlike the woman who thought 'one day is the same as the next' they mostly described Sunday as different from other days, including Saturday, although they said they were not particularly affected by work-life interference from working on weekends. In common these young employees clearly factored the higher pay rate they received for working on Sundays (most only received penalty rates for Sundays, not Saturdays) into their assessments of how much working on this day affected their lives outside work and they spoke in terms of making the choice to give up what one called 'a free day' for the extra pay. One example is a young man who worked every second Sunday and played football regularly on Saturdays. Working on Sunday 'wasn't too much of a hassle', because his time on Saturdays was most valuable to him and because he had sought out Sunday work to get the higher rate of pay, as he explains in the following interview excerpt:

IV10: Well you are giving up a day that's normally, you know, for most other people of a population it's a free day for them and we've been asked to come in.

Int: So do you think people see it as a free day?

IV10: Yes.

Int: But for you, personally it didn't make much difference?

IV10: No, it didn't make that much difference, only because as a uni student I needed the money.

Int: So in what way did you feel that, while you were doing it, that it was a free day for the rest of the community and not you?

IV10: Well it was a free day for me too that I gave up but I had more time and I had Saturday and when you asked that question I was more thinking of the full-timers who would say, their two days off a week would be a Wednesday and Thursday. They hated it. For me it bothered me, but it didn't bother me that much, well, I mean, part of the reason I applied for a retail job in the first place was that I needed the money, the higher rate.

39. Another young student said he was used to working weekends, it was 'normal' for him and it didn't interfere much with any particular life activities. However, he also said working on Sunday was a 'sacrifice' of his 'free time' and 'life', including his social life, and for this reason he would not work on Sundays if he wasn't paid a penalty rate (IV20). Like this man, other young people combining work and study spoke, on the one hand, of weekend work being 'normal' for them as they had done it for a long time, and on the other hand, of things they missed out on as a result of their weekend work.

40. A good example is the case of one young female university student who, like the older woman quoted earlier, initially said working on weekends 'doesn't really faze me'. She explained that the negative aspects of working on weekends were overshadowed by the benefits of the extra pay she received on Sundays when she was paid a penalty rate. She said the main reason she worked on Sunday was 'for the penalty rate', that she had come to rely on her weekend pay and would be 'devastated' and no longer able to afford her car if she didn't receive it. She also didn't mind working on Sunday because it fitted with her university timetable. However, later in her interview, she readily identified a whole host of activities she missed out on due to working on weekends and said she thought she had come to think of it as 'normal' just because she had been doing it for so many years.

I've tried working other days during the week and then have my weekend free when I first started uni and it was just impossible because my uni schedule was really bad and it still is really bad. So it would be like just, I just have to work on the weekend and get it over and done with in a block than have it mixed around with my uni classes and have to change every time my timetable changes. (IV04)

I do have to miss like christenings and sometimes, I do go to weddings and stuff that I need to go to but I miss like church with my family, and lots of, like some of my siblings sports things or things like that are on Sundays. ... It's like once a month maybe that I have something on a Sunday that I miss, yeah, and just like friend's things like they might have a birthday party on the Saturday but I can't go because I've got work early on Sunday. So I miss a lot of parties the night before. ... (I am) constantly missing out on like family barbeques and stuff that are always on Sundays. My family actually do have a barbeque every Sunday ... (There's not) anything that I'm responsible for, like, not, but like if I was (home) it would be much more helpful because I could drive, like, my mum on a Sunday has to do heaps of things for the children. I have five other siblings. .... So she's got to take them to different parties and birthdays and she's exhausted, and if I was there it would relieve that burden, but, yeah, that's the only thing I, yeah. .... So, yeah, pretty much all my uni, all my friends are either like working full-time, have apprenticeships or are doing uni but they're not working, or they're

working casually. So, yeah, I think I'm, yeah, one of the only people in my friendship group that (work weekends) consistently. (IV04)

Is Sunday different from Saturday?

Yeah. I mean, like, I don't feel as, like, I'm not getting a weekend when I work on Saturdays. Sundays I feel more like I'm really missing out on something. (IV22)

41. With very few exceptions employees told us that Sundays were different from Saturdays. As described earlier, people spoke of it feeling different having to work on Sundays than on Saturdays as 'everyone else' was not at work and they spoke of Sunday as a family day, a 'free' day or a rest day. While perceptions of work-life interference were influenced by the particular context of each individual's working week and life circumstances the sense that Sunday was different and not a regular work day was expressed by almost all of the 25 employees.

42. One person who did not see Sunday as different from Saturday was the woman quoted earlier who said 'one day is the same as the next' (IV05). Two other older workers said they regarded working on Saturday as pretty much the same as working on Sunday but these two people consider working on either weekend day to be very different from working on other days of the week in that they felt any weekend work caused work-life interference. One of these employees was a man who had very recently changed jobs because working on weekends interfered with his family and leisure time:

Well Saturday is really, to me, was the same (as Sunday). You know, I gave up my employment position simply because I just got tired of working Saturdays and Sundays. You know, I wanted to spend time with the family, I wanted to see my children, play golf, just do the things that most normal people do on a five day week, if you like. When you work Saturdays and Sunday you just don't get that opportunity. If your wife works, for argument sake, you might have a day off during the week but she doesn't and then on Saturdays and Sundays, if you've got to work there's just no time for relationships and family gatherings. There's all sorts of things that go on on a Saturday and Sunday that don't go on Monday to Friday. (IV01)

43. While insisting Saturdays and Sundays were the same, when pressed, this man said if he had to work on the weekend Saturday was the day he would choose to work in preference to Sunday. The reasons he gave for this were 'Ah just Sunday seems to be a day of relaxation. A day when, I mean there are a lot of people that work on Saturdays so Sundays is the only day that you get off to socialise, if you like' (IV10).

How and why is Sunday different for work-life interaction?

I'd say it's sort of a multi-purpose, multi-use day if you know what I mean, it's one of the things where you'll decide to either do a couple of chores, a couple of little things, or maybe drop in on a friend or relax instead, it's—yeah, that's Sunday. (IV 19)

44. Underlying the idea that Sunday is different from Saturday in negatively affecting work-life interaction there was a commonly-held view that for most of the community Sunday is a day off. For example, this was the source of resentment about working on Sunday for one young man combined with the fact that Sunday was a busy day at work for him:

Int: And so do you regard working on Sundays as different from working on another day?

IV20: I do.

Int: Why is that?

IV20: It seems more harder to get up and go to work. It's kind of like, it's almost begrudging, like you kind of like, it's almost like you're like you just don't want to do it

because you think everyone else's got a day off, everyone else's, you're constantly serving people at work who have the day off, it's quite busy and, it's a hard day Sunday.

Int: So, it's a hard day because you feel everyone else is not at work or just because it's busier than other days?

IV20: Both.

45. Both the sense of being excluded from a time for relaxation that 'everyone else' enjoyed and dislike of missing out on socialising and relaxing with family and friends - as Sunday would be their day off too - were strongly expressed by employees. Even those people who said they did not mind working on Sundays because of the pay or because it fitted with their university timetables spoke of missing out on, as one young woman put it, the 'stuff [people] only have happening on Sundays' (IV17).

46. For different individuals there were different activities that Sunday work interfered with. However, overall the employees' perceptions of work-life interference were most strongly tied to perceptions of loss of relaxation time and time with family and friends.

Sunday as rest and relaxation time

47. While many employees expressed strong views about Sunday work interfering with their relaxation and about this being different from and worse than work-life interference on other days of the week they often found it difficult to articulate why this was so, other than to speak of Sunday as 'feeling' different. This is illustrated in the interview excerpt that follows. This excerpt is from an interview with a young woman in her early 20s who worked on a rotating shift of about 25 hours a week. The excerpt picks up at a point where she is talking about how she felt different on the weekends when she didn't have to go to work:

IV17: 'Your body knows it's the weekend; you can just breathe and be like "Oh there's nothing you have to do".

Int: Okay. But doesn't it feel the same when you have a day off during the week?

IV17: No, it really doesn't. I do get some days off during the week and it's completely different.

Int: So does your body also know it's a weekday then?

IV17: Yep, It says "This is the weekday. You have things to do really. You need to do something".

Int: Right. Okay. So what about Saturdays? Are Saturdays the same as Sundays?

IV17: (On Saturdays) It's like I know that I have to do some stuff like it's, I don't know, I have to do some stuff. It's different to Sundays too I guess.

Int: And why do you reckon that is?

IV17: Because it's sort of like routine, like you go do the shopping on Saturdays and all that type of stuff, like housework and get the shopping done.

Int: Right. Okay.

IV17: Sunday comes along and then it's the day to relax.

48. In another example a woman explains how working on Sunday affects her ability to relax:

... it's taking away the relaxation time and at the end of the day I mean, you don't relax, you stress more, you, it's kind of hard to explain, it's one of those things. Though, I mean it's supposed to, I mean traditionally people call it a 'day of rest' anyway, I mean that's, obviously

that's another argument, but you know, but from my point of view that's, mentally it feels that way or it should be that way. (IV19)

Friends, family and socialising: 'stuff they only have happening on Sundays'

49. The idea that Sunday is a day of the week when people get together was central to the common views of the interviewees that Sunday is a 'family day' and a day for catching up with friends and engaging in social activities. Time spent with family and friends was often spent doing things which people did not do on other days of the week if they were unable to do them on Sunday because they were at work. Indeed, people spoke of planning activities and time with family and friends because it was Sunday, speaking of Sundays as time for family and friends, as in this case:

    So my husband and I plan to do something together on a Sunday or with the girls. I could do a roast dinner on a Sunday night perhaps. It's a bit late when you finish work at five o'clock on a Sunday to go home and cook a nice meal. Sunday was always our, Sunday was our family dinner night. We always used to do a roast on Sunday and that had to kind of become a fortnightly thing. (IV21)

50. Similarly, the young woman who is quoted in the heading above, when asked what kind of things she might do with her friends on Sundays said 'I don't know, like breakfast and lunch, doing markets and stuff like that'. These were the sorts of things she said her friends 'only have happening on Sundays' (IV17).

51. Employees of all ages spoke of being able to catch up with friends and family on Sunday because this is a day when people are available. Often, if they couldn't spend time relaxing and socialising with people on Sunday then they did not make other time to do this. This is illustrated by the comments of a young woman who had a heavy schedule involving university classes and employment over seven days of the week:

    Int: So do you think working on Sunday is different from working on Saturday?

    IV12: Yes, definitely.

    Int: Okay. So can you talk about that a bit?

    IV12: Saturday, like people have jobs that they, like jobs around the house, things that they have set out to do on a weekend they usually do on a Saturday. Whereas Sunday it's more catching up with people and more family and social aspects of the weekend rather than the things I need to get done on my days off.

    Int: Okay. So are there particular things that it interferes with, working on Sundays?

    IV12: Not really.

    Int: Okay. If you were not working Sundays what would you do?

    IV12: Sleep in and then I'd probably go see, spend time with my family or my friends. You know, go out to lunch or something with them.

    Int: Okay, so given that you work on Sundays when do you do these things?

    IV12: I don't really. Well, I do see them but not so much as I'd like. Also I start early on Sunday so I mostly miss Saturday nights.

52. Several people made the point that Sunday is a day for catching up with people to maintain social relationships. As one woman put it, Sunday is a day when she might 'see people I don't normally see' and 'a day when you can find other people at home' (IV24). Similarly, another employee, an older man, said Sundays were 'even just doing those few little tasks that I need to do to catch up with some friends, you know, just a quick drop in, that sort of thing' (IV19).

Employees spoke of Sunday being a day when informal gatherings and events were organised as catch-ups for friends. One young woman said her social life was affected a lot by working on Sundays:

> You don't get to go out with your friends because they're organising dinners on Saturday nights and lunches on Sundays. (Sunday is) their time when they can leave the children with their husbands and go shopping, to a shopping centre or something. So yeah, so your social life, you isolate yourself. (IV12)

53. Similarly other employees also said working on Sundays interfered with their social lives by limiting their participation in Saturday night social activities. This was a problem identified by employees of all ages. For example one young man said he felt for him 'the balance is skewed more toward work' with his partner and friends all working Monday to Friday, holding most of their social events on Saturday nights and able to 'have their fun' and 'have recovery time on the Sunday' (IV19).

54. Other social and family events that employees commonly cited when talking of weekend and Sunday work interfering with time with family and friends were weddings, christenings and family functions which were invariably held on weekends, as was the case for this young woman:

> It does interfere, also like family functions. That's difficult too. Because you'll have like family birthdays and whatnot, because obviously your family members, like your mother and father, aunties and uncles, they've all got, you know, 9-5 Monday to Friday jobs, so it's obviously always on a Saturday night for a party or family together on Sunday. So it does make it difficult to attend, so you either have to take the whole day off ... .(IV08)

DECLARATION OF DR FIONA MACDONALD

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Commission

Signed:

Dr Fiona Macdonald

26 August 2015

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APPENDIX 1: TABLES FOR ANALYSIS OF SELECTED 2014 AWALI DATA

Frequency of Saturday and Sunday Working

Table 1: How often do you work on Saturdays? All employees, retail employees

	All employees		Retail Industry employees	
	Frequency	**%**	**Frequency**	**%**
Never	833	36.0	62	27.8
Rarely	385	16.6	25	11.2
Sometimes	413	17.8	37	16.6
Often	332	14.3	39	17.5
Almost always	353	15.2	60	26.9
Total	2316	100	223	100

Table 2: How often do you work on Sundays? All employees, retail employees

	All employees		Retail Industry employees	
	Frequency	**%**	**Frequency**	**%**
Never	1175	50.7	92	41.3
Rarely	357	15.4	28	12.6
Sometimes	360	15.5	38	17.0
Often	209	9.0	25	11.2
Almost always	215	9.3	40	17.9
Total	2316	100	223	100

AWALI Means: Saturday and Sunday Working (No Control for Hours Worked)

AWALI Means in 3 Groups

Table 3-1a AWALI scores and Saturday work, **all employees**

Work Weekends	Mean	N	Std. Deviation
Never/rarely	37.2040	1214	19.88873
Sometimes	45.3690	402	21.53906
Often, almost always	48.0644	679	23.05888
Total	41.8474	2294	21.73544

Anova: Between groups significance = .000

Table 3-1b AWALI scores and Saturday work, **retail employees**

Work Weekends	Mean	N	Std. Deviation
Never/rarely	36.3590	86	18.52612
Sometimes	41.2605	37	23.97330
Often, almost always	41.4404	99	24.34429
Total	39.4368	222	22.23156

Anova: Between groups significance = .259

Table 3-2a AWALI scores and Sunday work, **all employees**

Work Weekends	Mean	N	Std. Deviation
Never/rarely	37.6908	1522	20.51435
Sometimes	47.7047	354	20.03446
Often, almost always	52.0125	419	22.95573
Total	41.8474	2294	21.73544

Anova: Between groups significance = .000

Table 3-2b AWALI scores and Sunday work, **retail employees**

Work Weekends	Mean	N	Std. Deviation
Never/rarely	34.4397	120	20.60154
Sometimes	45.7122	38	23.90939
Often, almost always	45.0579	65	22.20842
Total	39.4368	222	22.23156

Anova: Between groups significance = .001

AWALI Means in 2 Groups

Table 4-1a AWALI scores and Saturday work, **all employees**

Work Saturdays	Mean	N	Std. Deviation
Never/rarely	37.2040	1214	19.88873
Sometimes, often, almost always	47.0618	1081	22.53324
Total	41.8474	2294	21.73544

Anova: Between groups significance = .000

Table 4-1b AWALI scores and Saturday work, **retail employees**

Work Saturdays	Mean	N	Std. Deviation
Never/rarely	36.3590	86	18.52612
Sometimes, often, almost always	41.3919	136	24.15616
Total	39.4368	222	22.23156

Anova: Between groups significance = .100

Table 4-2a AWALI scores and Sunday work, **all employees**

Work Sundays	Mean	N	Std. Deviation
Never/rarely	37.6908	1522	20.51435
Sometimes, often, almost always	50.0403	772	21.75977
Total	41.8474	2294	21.73544

Anova: Between groups significance = .000

Table 4-2b AWALI scores and Sunday work, **retail employees**

Work Sundays	Mean	N	Std. Deviation
Never/rarely	34.4397	120	20.60154
Sometimes, often, almost always	45.2990	102	22.73461
Total	39.4368	222	22.23156

Anova: Between groups significance = .000

Disaggregated Five AWALI Questions by Saturday & Sunday Working

All Employees

Table 5: Frequency work interferes with your responsibilities or activities outside of work x Saturdays work, **all employees**

How often does your work interfere with your responsibilities or activities outside of work?	Never, rarely work on Saturdays	Sometimes, often, almost always work on Saturdays	Total
Never, rarely	699	399	699
	57.4%	36.5%	57.4%
Sometimes	351	375	351
	28.8%	34.3%	28.8%
Often, almost always	167	320	167
	13.7%	29.3%	13.7%
Total	1217	1094	1217
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 6: Frequency work interferes with your responsibilities or activities outside of work x Sundays work, **all employees**

How often does your work interfere with your responsibilities or activities outside of work?	Never, rarely work on Sundays	Sometimes, often, almost always work on Sundays	Total
Never, rarely	864	234	1098
	56.5%	29.9%	47.5%
Sometimes	449	278	727
	29.3%	35.5%	31.4%
Often, almost always	217	270	487
	14.2%	34.5%	21.1%
Total	1530	782	2312
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 7 Frequency work keeps you from spending the amount of time you would like with family or friends x work on Saturdays, **all employees**

How often does your work keep you from spending the amount of time you would like with family or friends?	**Never, rarely work on Saturdays**	**Sometimes, often, almost always work on Saturdays**	**Total**
Never, rarely	692	387	1079
	56.9%	35.3%	46.7%
Sometimes	309	339	648
	25.4%	31.0%	28.0%
Often, almost always	215	369	584
	17.7%	33.7%	25.3%
Total	1216	1095	2311
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 8 Frequency work keeps you from spending the amount of time you would like with family or friends x work on Sundays, **all employees**

How often does your work keep you from spending the amount of time you would like with family or friends?	**Never, rarely work on Sundays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	841	238	1079
	55.0%	30.4%	46.7%
Sometimes	392	256	648
	25.6%	32.7%	28.0%
Often, almost always	296	289	585
	19.4%	36.9%	25.3%
Total	1529	783	2312
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 9: Frequency work interferes with your ability to develop or maintain friendships in your community x Saturday work, **all employees**

How often does your work interfere with your ability to develop or maintain friendships in your community?	**Never, rarely work on Saturdays**	**Sometimes, often, almost always work on Saturdays**	**Total**
Never, rarely	846	528	1374
	69.6%	48.4%	59.6%
Sometimes	233	281	514
	19.2%	25.8%	22.3%
Often, almost always	137	282	419
	11.3%	25.8%	18.2%
Total	1216	1091	2307
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 10: Frequency work interferes with your ability to develop or maintain friendships in your community x Sunday work, **all employees**

How often does your work interfere with your ability to develop or maintain friendships in your community?	**Never, rarely work on Sundays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	1037	337	1374
	68.0%	43.1%	59.6%
Sometimes	294	220	514
	19.3%	28.2%	22.3%
Often, almost always	195	224	419
	12.8%	28.7%	18.2%
Total	1526	781	2307
	100.0%	100.0%	100.0%

Chi square: p =.000

Table 11 Frequency you feel rushed or pressed for time x Saturdays work, **all employees**

How often do you feel rushed or pressed for time?	Never, rarely work on Saturdays	Sometimes, often, almost always work on Saturdays	Total
Never, rarely	189	179	368
	15.5%	16.3%	15.9%
Sometimes	423	331	754
	34.7%	30.1%	32.5%
Often, almost always	606	589	1195
	49.8%	53.6%	51.6%
Total	1218	1099	2317
	100.0%	100.0%	100.0%

Chi square: p =.060

Table 12 Frequency you feel rushed or pressed for time x Sundays work, **all employees**

How often do you feel rushed or pressed for time?	Never, rarely work on Sundays	Sometimes, often, almost always work on Sundays	Total
Never, rarely	254	113	367
	16.6%	14.4%	15.8%
Sometimes	517	237	754
	33.7%	30.2%	32.6%
Often, almost always	761	434	1195
	49.7%	55.4%	51.6%
Total	1532	784	2316
	100.0%	100.0%	100.0%

Chi square: p =.034

Table 13 Extent to which you are satisfied with your work/life balance x Saturday work, **all employees**

How satisfied are you with your work/life balance?	Never, rarely work on Saturdays	Sometimes, often, almost always work on Saturdays	Total
Not very, not at all satisfied	155	234	389
	12.7%	21.4%	16.8%
Neither nor satisfied/dissatisfied	179	154	333
	14.7%	14.1%	14.4%
Very, somewhat satisfied	883	704	1587
	72.6%	64.5%	68.7%
Total	1217	1092	2309
	100.0%	100.0%	100.0%

Chi square: p =.000

Table14 Extent to which you are satisfied with your work/life balance x Sundays work, **all employees**

How satisfied are you with your work/life balance?	Never, rarely work on Sundays	Sometimes, often, almost always work on Sundays	Total
Not very, not at all satisfied	204	185	389
	13.3%	23.7%	16.9%
Neither nor satisfied/dissatisfied	213	119	332
	13.9%	15.3%	14.4%
Very, somewhat satisfied	1112	475	1587
	72.7%	61.0%	68.8%
Total	1529	779	2308
	100.0%	100.0%	100.0%

Chi square: p =.000

Retail industry employees

Table 15: Frequency work interferes with your responsibilities or activities outside of work x Saturdays work, **retail employees**

How often does your work interfere with your responsibilities or activities outside of work?	Never, rarely work on Saturdays	Sometimes, often, almost always work on Saturdays	Total
Never, rarely	51	69	120
	58.6%	50.7%	53.8%
Sometimes	*	34	53
		25.0%	23.8%
Often, almost always	*	33	50
		24.3%	22.4%
Total	87	136	223
	100.0%	100.0%	100.0%

* cell size less than 20

Table 16: Frequency work interferes with your responsibilities or activities outside of work x Sundays work, **retail employees**

How often does your work interfere with your responsibilities or activities outside of work?	Never, rarely work on Sunday	Sometimes, often, almost always work on Sunday	Total
Never, rarely	75	44	119
	62.5%	43.1%	53.6%
Sometimes	30	23	53
	25.0%	22.5%	23.9%
Often, almost always	*	35	50
		34.3%	22.5%
Total	120	102	222
	100.0%	100.0%	100.0%

* cell size less than 20

Table 17 Frequency work keeps you from spending the amount of time you would like with family or friends x work on Saturdays, **retail employees**

How often does your work keep you from spending the amount of time you would like with family or friends?	**Never, rarely work on Saturdays**	**Sometimes, often, almost always work on Saturdays**	**Total**
Never, rarely	51	66	117
	60.0%	48.5%	52.9%
Sometimes	*	34	49
	*	25.0%	22.2%
Often, almost always	*	36	55
	*	26.5%	24.9%
Total	85	136	221
	100.0%	100.0%	100.0%

* cell size less than 20

Table 18 Frequency work keeps you from spending the amount of time you would like with family or friends x work on Sundays, **retail employees**

How often does your work keep you from spending the amount of time you would like with family or friends?	**Never, rarely work on Sundays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	70	79	149
	80.5%	58.1%	66.8%
Sometimes	*	28	40
		20.6%	17.9%
Often, almost always	*	29	34
		21.3%	15.2%
Total	87	136	223
	100.0%	100.0%	100.0%

* cell size less than 20

Table 19: Frequency work interferes with your with your ability to develop or maintain friendships in your community, Saturdays **retail employees**

How often does your work interfere with your ability to develop or maintain friendships in your community?	**Never, rarely work on Saturdays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	70	79	149
	80.5%	58.1%	66.8%
Sometimes	*	28	40
		20.6%	17.9%
Often, almost always	*	29	34
		21.3%	15.2%
Total	87	136	223
	100.0%	100.0%	100.0%

* cell size less than 20

Table 20: Frequency work interferes with your ability to develop or maintain friendships in your community x Sunday work, **retail employees**

How often does your work interfere with your ability to develop or maintain friendships in your community?	**Never, rarely work on Sundays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	94	54	148
	79.0%	52.9%	67.0%
Sometimes	*	27	40
		26.5%	18.1%
Often, almost always	*	21	33
		20.6%	14.9%
Total	119	102	221
	100.0%	100.0%	100.0%

* cell size less than 20

Table 21: Frequency you feel rushed or pressed for time x Saturdays work, **retail employees**

How often do you feel rushed or pressed for time?	**Never, rarely work on Saturdays**	**Sometimes, often, almost always work on Saturdays**	**Total**
Never, rarely	*	32	49
		23.5%	22.1%
Sometimes	29	36	65
	33.7%	26.5%	29.3%
Often, almost always	40	68	108
	46.5%	50.0%	48.6%
Total	86	136	222
	100.0%	100.0%	100.0%

* cell size less than 20

Table 22: Frequency you feel rushed or pressed for time x Sunday work, **retail employees**

How often do you feel rushed or pressed for time?	**Never, rarely work on Sundays**	**Sometimes, often, almost always work on Sundays**	**Total**
Never, rarely	26.4%	17.6%	22.4%
	30	35	65
Sometimes	24.8%	34.3%	29.1%
	59	49	108
Often, almost always	48.8%	48.0%	48.4%
	121	102	223
Total	100.0%	100.0%	100.0%
	26.4%	17.6%	22.4%

Chi square: p =.162

Table 23: Extent to which you are satisfied with your work/life balance x Saturday work, **retail employees**

How satisfied are you with your work/life balance?	Never, rarely work on Saturdays	Sometimes, often, almost always work on Saturdays	Total
Not very, not at all satisfied	*	26	38
		19.1%	17.0%
Neither nor satisfied/dissatisfied	*	15	27
		11.0%	12.1%
Very, somewhat satisfied	63	95	158
	72.4%	69.9%	70.9%
Total	87	136	223
	100.0%	100.0%	100.0%

* cell size less than 20

Table 24: Extent to which you are satisfied with your work/life balance x Sunday work, **retail employees**

How satisfied are you with your work/life balance?	Never, rarely work on Sundays	Sometimes, often, almost always work on Sundays	Total
Not very, not at all satisfied	*	21	37
		20.6%	16.7%
Neither nor satisfied/dissatisfied	*	12	27
		11.8%	12.2%
Very, somewhat satisfied	89	69	158
	74.2%	67.6%	71.2%
Total	120	102	222
	100.0%	100.0%	100.0%

* cell size less than 20

Selected Socio-Demographic & Employment Characteristics: Retail and Other Industry Employees

Table 25: Sex by industry

Sex	Other industry		Retail Industry		Total	
Male	1086	52.3	94	42.2	1180	51.3
Female	990	47.7	129	57.8	1119	48.7
Total	2076	100	223	100	2299	100

Chi square: p =.004

Table 26: Age by industry

Age	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
18-24	263	12.7	75	33.9	338	14.7
25-34	493	23.8	62	28.1	555	24.2
35-44	468	22.6	27	12.2	495	21.6
45-54	461	22.2	31	14.0	492	21.4
55-64	324	15.6	20	9.0	344	15.0
65+	66	3.2	*	*	72	3.1
Total	2075	100	221	100	2296	100

* cell size less than 20

Chi square: p =.000

Table 27: Dependent children by industry

Dependent children	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
No	1142	55.0	133	59.6	1275	55.5
Yes	993	45.0	190	40.4	1023	44.5
Total	2075	100	223	100	2298	100

Chi square: p =.107

Table28: Occupation by industry

Occupation	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
Managers	224	10.8	25	11.3	249	10.9
Professionals	562	27.2	*	*	573	25.1
Technicians & trades workers	254	12.3	*	*	264	11.5
Community & personal service workers	365	17.7	*	*	369	16.1
Clerical & administrative workers	364	17.6	*	*	369	16.1
Sales workers	56	2.7	156	70.3	212	9.3
Machinery operators & drivers	108	5.2	*	*	111	4.9
Labourers	132	6.4	*	*	140	6.1
Total	2065	100	222	100	2287	100

* cell size less than 20

Chi square: p =.000

Table 29: Type of Employment by industry

Employment Type	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
Permanent or ongoing	1564	75.3	135	60.8	1699	73.9
Fixed term	184	8.9	*	*	193	8.4
Casual	328	15.8	78	35.1	406	17.7
Total	2076	100	222	100	2298	100

* cell size less than 20

Chi square: p =.001

Table 30: Full-time and part-time employment by industry

Full-time/part-time	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
Full-time	1429	68.8	86	38.6	1515	65.9
Part-time	647	31.2	137	61.4	784	34.1
Total	2076	100	223	100	2299	100

Chi square: p =.000

Table 31: Weekly work hours

Weekly work hours	Other industry		Retail Industry		Total	
	Frequency	%	Frequency	%	Frequency	%
1-15	190	9.2	48	21.7	238	10.4
16-34	454	22.0	89	40.3	543	23.7
35-47	1020	49.4	62	28.1	1082	47.3
48+	402	19.5	22	10.0	424	18.5
Total	2066	100	221	100	2287	100

Chi square: p =.000

APPENDIX 2: COMPARING AWALI SCORES FOR RETAIL & NON-RETAIL WORKERS CONTROLLING FOR HOURS

Table 1: Influence of working Saturdays on average AWALI scores when controlling for hours worked, retail employees and other employees

Tests of Between-Subjects Effects

Dependent Variable: Index0to100 (AWALI score)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	127225.909[a]	4	31806.477	76.061	.000	.114	304.242	1.000
Intercept	221806.436	1	221806.436	530.418	.000	.184	530.418	1.000
R#	64244.224	1	64244.224	153.631	.000	.061	153.631	1.000
workSat	11399.420	1	11399.420	27.260	.000	.011	27.260	.999
Retail	131.438	1	131.438	.314	.575	.000	.314	.087
workSat * Retail	254.392	1	254.392	.608	.435	.000	.608	.122
Error	985215.599	2356	418.173					
Total	5288425.000	2361						
Corrected Total	1112441.508	2360						

a. R Squared = .114 (Adjusted R Squared = .113)

b. Computed using alpha = .05

- Analysis of covariance (ANCOVA) showed that working on Saturdays (sometimes, often, almost always) was significantly associated with higher average AWALI scores when controlling for hours worked, F(1,2360) = 27.26, p =.000. (Adjusted AWALI scores controlled for hours are 45.885 for those who sometimes, often, almost always work Saturdays compared to 38.166 for those who never or rarely work Saturdays)
- Working in retail (in comparison to other industries) had no significant effect on average AWALI scores when controlling for hours worked, F(1,2360) = .81, p = .575.
- The interaction effect of working weekends and working in retail was not significant, F(1,2360) = .608, p = .435, meaning that the influence of working Saturdays on average AWALI scores was not affected by whether or not employees worked in the retail industry.
-

Table 2: Influence of working Sundays on average AWALI scores when controlling for hours worked, retail employees v other employees

Tests of Between-Subjects Effects

Dependent Variable: Index0to100 (AWALI Score)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	150084.976a	4	37521.244	91.858	.000	.135	367.432	1.000
Intercept	247819.023	1	247819.023	606.700	.000	.205	606.700	1.000
R#	64225.000	1	64225.000	157.233	.000	.063	157.233	1.000
workSun	29865.405	1	29865.405	73.115	.000	.030	73.115	1.000
Retail	197.498	1	197.498	.484	.487	.000	.484	.107
workSun * Retail	316.593	1	316.593	.775	.379	.000	.775	.142
Error	962356.532	2356	408.471					
Total	5288425.000	2361						
Corrected Total	1112441.508	2360						

a. R Squared = .135 (Adjusted R Squared = .133)

b. Computed using alpha = .05

- Analysis of covariance (ANCOVA) showed that working on Sundays (sometimes, often, almost always) was significantly associated with higher average AWALI scores when controlling for hours worked, F(1,2360) = 73.12, p =.030. (Adjusted AWALI scores controlled for hours are 49.609 for those who sometimes, often, almost always work Sundays compared to 37.325 for those who never or rarely work Sundays)
- Working in retail (in comparison to other industries) had no significant effect on average AWALI scores when controlling for hours worked, F(1,2360) = .484, p = .487
- The interaction effect of working Sundays and working in retail was not significant, F(1,2360) = .775, p = .379, meaning that the influence of working Sundays on average AWALI scores was not affected by whether or not employees worked in the retail industry.

Table 3: Comparison of combinations of Sunday and Saturday working, controlling for hours, all employees

Tests of Between-Subjects Effects

Dependent Variable: Index0to100

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	57152.267[a]	3	19050.756	42.186	.000	.096	126.559	1.000
Intercept	187116.811	1	187116.811	414.356	.000	.258	414.356	1.000
R#	35574.495	1	35574.495	78.777	.000	.062	78.777	1.000
SatSun_regular	19108.003	2	9554.002	21.157	.000	.034	42.313	1.000
Error	536934.489	1189	451.585					
Total	3271325.000	1193						
Corrected Total	594086.756	1192						

a. R Squared = .096 (Adjusted R Squared = .094)

b. Computed using alpha = .05

This analysis addresses the question of whether working on Sundays is associated with higher AWALI scores than working on Saturdays. We selected all employees excluding those who never, or rarely work Saturdays and/or Sundays. That is that is we selected the group working sometimes, often or almost always on Saturdays and/or Sundays (n=1174).

We ran a univariate analysis which also controlled for hours worked:

- Analysis of covariance (ANCOVA) showed that working on sometimes, often, almost always working on Saturdays and/or Sundays was significantly associated with higher average AWALI scores when controlling for hours worked than rarely never working Saturdays and/or Sundays, F(1,1192) = 21.16, p =.000.
- The adjusted AWALI scores, controlled for hours, are:
- 41.691 for those employees who sometimes, often, almost always work Saturdays but not Sundays
- 48.824 for those who sometimes, often, almost always work Sundays but not Saturdays
- 50.322 for those who sometimes, often, almost always work both Sundays and Saturdays

To investigate whether the differences between these average AWALI scores were significant we undertook a series of post hoc tests as shown in Table 4. These comparisons use the Bonferroni corrections to adjust for multiple comparisons. The confidence interval was set at 0.05 which means we can be 95% sure that all of the confidence intervals reflect the true value.

Table 4: Comparing the AWALI scores of working combinations of Sunday and/or Saturday working, all employees

Comparison	**Mean 1**	**Mean 2**	**N1**	**N2**	**Signficant? (p<0.05)**	**t**
Sat only v Sun only	41.691	48.824	394	79	Yes	2.722
Sat only v Sun & Sat	41.691	50.322	394	720	Yes	6.480
Sun only v Sun & Sat	48.82	50.322	79	720	No	0.596

The post hoc tests showed that sometimes, often, almost always working Sundays alone or in combination with working Saturdays is associated with higher AWALI scores than sometimes, often, almost always working Saturdays and not Sundays. These comparisons are as follows:

- Average AWALI scores for those sometimes, often, almost always working *Sundays and not Saturdays were significantly higher* ($p<0.05$, $t=2.722$) than those for employees sometimes, often, almost always *working Saturdays and not Sundays*.
- Average AWALI scores for those sometimes, often, almost always *working Sundays and Saturdays* were significantly higher ($p<0.05$, $t=6.480$) than those for employees sometimes, often, almost always working Sundays and not Saturdays
- However there was *no significant difference* in average AWALI scores *between those working Sundays and not Saturdays and those working Saturdays and Sundays* ($p>0.05$, $t=0.596$)

APPENDIX 3: COMPARISONS OF AWALI 2008 & AWALI 2014 SURVEYS

Table 1: How often do you work on weekends, Saturdays and/or Sundays? All employees, retail employees **AWALI 2008**

	All employees		**Retail Industry employees**	
	Frequency	%t	Frequency	%
Never	366	30.7	27	22.5
Rarely	165	13.9	15	12.5
Sometimes	248	20.8	16	13.6
Often	206	17.2	29	24.9
Almost always	207	17.3	31	26.4
Total	1192	100.0	118	100.0

Table 2: How often do you work on weekends, Saturdays and/or Sundays? All employees, retail employees **AWALI 2014**

	All employees		**Retail Industry employees**	
	Frequency	%	Frequency	Percent
Never	767	33.1	52	23.4
Rarely	375	16.2	*	*
Sometimes	426	18.4	37	16.7
Often	345	14.9	41	18.5
Almost always	403	17.4	75	33.8
Total	2316	100.0	222	100.0

Table 3 AWALI 2008 scores and weekend work, **all employees**

Work Weekends	**Mean**	**N**	**Std. Deviation**
Never/rarely	33.6219	527	20.05587
Sometimes, often, almost always	46.1503	655	22.10389
Total	40.5612	1182	22.10219

Anova: Between groups significance = .000

Table 4: AWALI 2014 scores and weekend work, **all employees**

Work Weekends	Mean	N	Std. Deviation
Never/rarely	36.4948	1138	19.66732
Sometimes, often, almost always	47.1157	1156	22.38556
Total	41.8474	2294	21.73544

Anova: Between groups significance = .000

An analysis of whether average AWALI scores for weekend work had changed between the 2008 AWALI survey and the 2014 AWALI survey was undertaken. This comparison set out in Table 5 uses the 2008 AWALI and 2014 AWALI means for those sometimes, often or almost always working on the weekend.

Table 5: Comparing average AWALI 2008 and 2014 scores for weekend working, **all employees**

Comparison	2008 AWALI	2014 AWALI	N1	N2	Signficant? (p<0.05)
AWALI means	46.1053	47.1157	655	1156	No

The unpaired t test results indicated that there was *no statistically significant difference* in average AWALI scores in 2008 (46.1503) and 2014 (47.1157) for employees working sometimes, often or almost always on the weekend. That is, average 2008 AWALI scores for those sometimes, often or almost always working weekends were *not significantly different* (p=.376, t=0.8858) to average 2014 AWALI scores for those sometimes, often or almost always working weekends.

APPENDIX 4: DEMOGRAPHIC AND EMPLOYMENT DETAILS FOR THE 25 INTERVIEWEES

Sex	N	Age Group	N
Female	19	18-24	15
Male	6	25-34	3
		35-44	2
		45-54	3
		55-64	2
Full or Part-time	**N**	**Employment type**	**N**
Full-time	5	Casual (no paid leave)	10
Part-time	20	With paid leave	15
Frequency of Sunday work	**N**	**Sundays Penalty rates**	**N**
Weekly*	14	No penalty	4
Three per month	2	Double time	5
Fortnightly	7	1.5 time	16
Monthly	2		

*includes one employee who worked every Sunday only in summer months.

APPENDIX 5: INTERVIEW SCHEDULE

Introduction / Preliminaries

Hello, my name is X and I am from RMIT University.

I am calling you because you participated in a telephone survey last year which included some questions about your work-life balance and, at that time, you agreed to a possible future follow-up telephone interview about this topic.

We are now conducting research investigating **retail** employees' experiences of working on weekends and any impacts on their work-life balance. If you agree to an interview it will take about 20 minutes and I will ask you questions about your working time arrangements, how you feel about these and whether you working time affects your work-life balance. I will also ask you questions about your household circumstances.

Are you able to participate in an interview now? Alternatively I can ring you at another time.

If another time: Is this the best number to call you on (*get mobile no*)?

CHECK: When you participated in the telephone survey (in March/April) last year you indicated you were working as an employee in the retail industry at that time. Is that correct?

If not (i.e. person never worked as employee in retail) say thanks and bye.

I have an information sheet that explains the project and your rights as a research participant.

If interviewing now: I will read the information sheet first then ask if you have understood it and agreed to the interview. I can also email or post it to you.

If later: I will send you an information sheet that you should read before the interview.

Get email address or postal address to send information and consent form

When the information sheet has been read,

Have you got any questions?

With your permission I will turn the audio recorder on now.

AUDIO RECORDER SHOULD BE ON NOW

*- GET CONSENT ON AUDIO TAPE –SEE PAGE 3 PICF

Interview

Are you still employed in retail?

> *If no...* For the interview could you think back to when you were working in retail and answer the interview questions in relation to your employment at that time?

Working on Weekends -About Working on Sundays

(As an employee in the retail industry) do you/have you ever worked on Sundays?

(note: this should be everyone!)

> *If not, then explain we are interested in weekend working and say thanks and bye*

How often is/was it that you worked on Sundays?

So, overall, would you say you worked on Sundays rarely, sometimes, often or almost always?

What was your job? (job and sector [*should be retail*])

Are/Were you a full-time or part-time employee (at the time you worked Sundays)?

In total, how many hours a week did you usually work?

Are/were you employed as a casual or permanent at the time?

(*Explain and double-check*: we are defining casuals as people who don't get any paid holiday or sick leave).

How long have you/did you work on Sundays?

What is/was the main reason you work/ed on Sundays?

> (*prompts/follow up*: Would you say it was your choice to work on Sundays? Was it an option for you to work on another day instead of Sunday? Did you ask to work on Sunday? (Why?), did you look for a job in which you could work on Sundays? (Why?)

Did/Do you prefer working on Sundays or would you prefer to be working on some other day of the week instead? Why? (*Pursue reasons here)*

(Prompt: Do you like working on Sundays?)

Are there things you didn't/don't like about working on Sundays?

(*If yes: W*hat are they? Tell me about why you don't like them)

Does/did working on a Sunday feel any different to working on other days?

Does/did working on Sundays interfere with your responsibilities or activities outside work at all?

(*re-frame/prompt* – when you weren't working on Sundays were there responsibilities or activities outside work that you were more engaged with or had more time for than you do while working on Sundays?)

If yes: What activities did/does working on Sunday interfere with?

(*prompts*: See list below)

Does/did working on Sundays affect your involvement in

i) household and family responsibilities (spending time with family/food shopping, children's activities),

ii) sporting activities/(playing, watching, keeping fit),

iii) social activities (catching up with friends)

iv) community activities/responsibilities (church, voluntary work, children's school)

v) relaxing /time for yourself (personal admin)

For each activity, if yes, then ask: Can you tell me about that? (*prompts:* How does/did working on Sundays interfere with/affect involvement in that? How did/does that affect you? How did/do you feel about that?

Where relevant: What impact does/did that have on your household/family/community group?

Does/did working on Sunday restrict the time you spend with family or friends at all?

If yes: Can you tell me about that?

(*Prompts/follow-up* How does/did working on Sundays restrict the time you spend with family or friends? What is/was the impact of that? How do/did you feel about that?, Does working on Sundays impact on your relationships (with family, with friends, others in community)? Do any of your family and friends also work on Sundays?)

Can you do these things with family/friends at other times or are they especially Sunday activities?

(Explore) Note: Don't pursue hypotheticals unless can give more insight into present/past.

About Working on Saturdays

(In your retail job) do you/did you ever work on Saturdays?

If no: Go to PAY Questions

Did/does working on Saturdays have the same impact/effects as working on Sundays?

(need to draw here on what interviewee has said about Sundays –drawing on specific activities/impacts one-by-one if applicable)

Why is that? What is same/different about it (Sunday from Saturday) for you? Why is it the same/different?

Pay for Weekend Work

If Sunday work appears to be overtime/spillover only: Are /were you paid for your work on Sundays?

All: Do you/did you get paid a higher hourly rate for working on Sundays than for working on other days?

If yes: What was the penalty rate?/How much extra did you get paid?

If yes: Did/do you get paid a higher hourly rate than you would if you were working on Saturday?

Is it important to you that you get a higher hourly rate for Sundays? Why? Why not?

If yes, prompt for more information if pay and income have not been discussed already.

Would you work on Sundays if you didn't get the higher rate?

Additional Information

Demographics (Checklist or follow up from above as relevant)

- Age: (18-24, 25-34, 35-44, 45-54, 55-64, 65+)

Other main activities involved in (while working on weekends):

- Caring or parenting (sole parent?)
- Other job/s: occupation, FT/PT,
- Study: FT/PT
- Other (voluntary/community activities etc)

- State of residence

Would you be prepared to participate in a follow-up telephone interview about your working arrangements and work-life?

If yes: Is this the best phone number to contact you? Do you have another number we can contact you on?

CLOSE: Thank you for your time. Any questions? (reminder – our contact details are on Info Sheet).

Employee Earnings
in the
National Retail Industry

A Report for the
Shop Distributive and Allied
Employee's Association (SDA)

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ABBREVIATIONS OR SPECIAL TERMS

Abbreviation	*Meaning*
ABS	Australian Bureau of Statistics
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
AWE	ABS Survey of Average Weekly Earnings
CPI	Consumer Price Index
Division G	ANZSIC Division for the retail industry (to make scrutiny of various detailed industry tables easier I have capitalised DIVISION G in those tables)
EEBTUM	ABS Survey of Employee Earnings and Benefits and Trade Union Membership
EEH	ABS Survey of Employee Earnings and Hours
FMW	Federal Minimum Wage
GFC	Global Financial Crisis
HILDA	Household, Income and Labour Dynamics in Australia
ILO	International Labour Organisation
NMW	National Minimum Wage
Other Division G	A reference to Subdivisions 39 and 40 in detailed industry tables where Division G has been separated out. (to make scrutiny of such tables easier I have capitalised OTHER DIVISION G in those tables)
Subdivision 39	ANZSIC Subdivision covering motor vehicles and motor vehicle parts retailing
Subdivision 40	ANZSIC Subdivision covering fuel retailing
Retail	Industry classification relevant to this report, which exclude ANZSIC Subdivisions 39 and 40 from Division G (to make scrutiny of various detailed industry tables easier I have capitalised RETAIL in those tables)
WPI	ABS Wage Price Index

This report uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this report, however, are those of the author and should not be attributed to either FaHCSIA or the MIAESR.

Key Findings

Earnings situation

Using both household-based and employer-based surveys, the overall patterns in earnings are conclusive. Compared to workers in other industries, the retail workforce is amongst the lowest paid, coming close behind accommodation and food services. While the percentages vary slightly, the earnings for retail workers are about 70% of the earnings of the all-industry average.

In 2014 the mean weekly wage of adult full-time non-managerial employees in the retail industry (Division G of ANZSIC)[1] was $1,069 while the median was $950. This was about 71% of the all-industry average of $1,509. Some two-thirds of these Division G employees were earning below $1,100 per week, compared with a proportion of about one third in all industries.

The hourly wage for non-managerial employees in Division G—which includes the part-time workforce—was $24.90. This was also about 71% of the all-industry average of $35.30.

Changes over time

The earnings situation of retail workers vis-à-vis other workers deteriorated in the wake of the Global Financial Crisis. Both ABS data and the HILDA data show a decisive break in the trend lines for these two groups of workers, with the wages growth of retail workers falling steadily behind from 2009 onwards.

Low paid workers

Along with hospitality and food services, retail has the largest proportion of low paid workers in Australia. The extent to which the retail workforce is low paid varies, depending on the definition of low pay and the population under examination. The most optimistic figure is a proportion of 10% and the most pessimistic figure is 50%. A more robust estimate for the pessimistic figure is probably about 20% using the definition of low paid as below two-thirds median earnings, and somewhere in the mid 30% range using the definition of low paid as earnings below the bottom quintile.

In terms of comparisons with other industries, these proportions span a range from 1.3 to 2.5. Overall, it seems reasonable to conclude that retail employees are about twice as likely to be in the low paid category as employees in other industries.

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1. See page 2 below for an explanation of this terminology.

1. Introduction

This report examines the earnings situation of the national retail workforce and seeks to understand the extent to which this workforce is low paid. Low paid is a relative concept and much of the analysis in this report makes comparisons with other industries or with other segments of the workforce who are defined as not low paid. While most of the analysis is focussed on individual employees, some of the analysis looks at their household situation and their financial circumstances.[2]

The purpose of the analysis is to assist the Fair Work Commission in its four yearly review of modern awards relevant to the national retail workforce. Whereever possible, the definition of the retail industry is closely aligned with the coverage of these awards. Similarly, whereever possible the definition of the workforce is based on employees.

There is considerable complexity in the data collected on the earnings of workers and there is added complexity in trying to make these data align with coverage in industrial awards. Nevertheless, this research benefits from the datasets which the Australian Bureau of Statistics and the Department of Social Services make available to researchers. These datasets can be analysed in ways which make the final results relevant to the award review process, and highly informative for the insights which they provide.

Part of the complexity in the story is due to earnings themselves. How are they defined? Should they be restricted to ordinary time earnings? Should they include bonuses, overtime payments or non-cash remuneration? Should they be analysed on a weekly basis or as an hourly rate? Which groups of workers—termed populations—should be the subject of enquiry?

Comparisons using weekly wages can be misleading for any workforce with a large component of part-time workers. If one restricts analysis to full-time workers, the drop in sample size may be considerable. For this reason, hourly rates are usually necessary if one wants to include part-time employees in the picture. Casual employment can also complicate the story because a penalty loading is implicit in the wages reported. The National Minimum Wage currently sets this loading at 25%, though some enterprise agreements set it higher. Such a loading is essentially composed of two elements: one is compensation for lack of entitlements, such as sick leave and annual leave; the other is an actual penalty, a disincentive to employers to engage casual workers. Calculating the amount by which one should discount a reported wage, in order to arrive at the comparable wage which an equivalent non-casual worker would earn, can be difficult,

2. All of the analysis of the data in this report has been conducted using the R language (R Core Team 2014, *R: A Language and Environment for Statistical Computing*, R Foundation for Statistical Computing, Vienna, Austria, URL: `http://www.R-project.org/`) and the graphs have been produced using the `ggplot2` package (Hadley Wickham 2009, *ggplot2: Elegant Graphics for Data Analysis*, New York: Springer). The 2011 Census tables have been produced using the ABS online tool, `TableBuilder Pro`.

but is nevertheless feasible. It can be useful to report both original and discounted earnings, so that any adjustments of this nature can be transparent.

Analysing earnings over time requires some adjustment being made for inflation. In this report the consumer price index (CPI) has been used to convert nominal to real earnings, though other approaches to such adjustment are also possible.[3] It is often informative to present both nominal (current) wages as well as real (CPI-adjusted) wages, and the report undertakes this where feasible.

The definition of the 'retail workforce' adds further complexity. In the statistical arena, the retail industry is designated 'Retail Trade' and is classified as ANZSIC Division G.[4] For the purposes of the award review process, workers in two Subdivisions, Motor Vehicle and Motor Vehicle Parts Retailing, and Fuel Retailing, are not relevant (they make up Subdivisions 39 and 40 in the ANZSIC scheme). For some of the data analysed, it is not possible to exclude these Subdivisions and so the results are those for Division G in its entirety. For some of the analysis in this report, it is possible to exclude these Subdivisions and in these parts of the report the definition comes closer to the definition of retail encompassed by the industrial awards.

For ease of expression and to avoid confusion, throughout this report I will refer to ANZSIC Division G with Subdivisions 39 and 40 excluded as the **retail** *industry or the retail workforce. When I discuss data which includes Subdivisions 39 and 40, I will refer to this as* **Division G**.

There are also a number of populations to be considered. In the industrial context, employees are the appropriate population. But sometimes the data only provide information on 'employed persons'. This broader group includes the self-employed (own account workers) as well as unpaid family workers. There is another category of workers, however, who occur in some datasets. These are owner managers of businesses and they appear in many datasets as employees (because they pay themselves a wage). Fortunately, some datasets allow these workers to be identified, and they can therefore be excluded from the analysis.

Within the population of employees one can sometimes distinguish between juniors and adults. In addition, many datasets restrict their population to adult non-managerial employees because the earnings of managers can constitute extreme statistical outliers. Furthermore, the earnings of managers are often outside the domain of industrial regulation. In the case of the retail industry, this distinction is less clear cut: not only are there many low paid managers in this industry but some managerial positions are covered in the classification scheme for the relevant awards.

To deal with this complexity in populations, this report provides as much detail as relevant on the population being examined, and when there is scope to provide data on more than one population, this is done so that differences can be understood. In

3. A well-known debate between Bob Gregory and Grant Belchamber during the 1990s hinged on what was the appropriate index by which to adjust wages for inflation (G. Belchamber 1996, 'Disappearing middle or vanishing bottom? A comment on Gregory', in: *The Economic Record* Vol. 72. No. 218, pp. 287–293. R.G. Gregory 1996, 'Disappearing Middle or Vanishing Bottom? —A reply', in: *The Economic Record* Vol. 72. No. 218, pp. 294–296).

4. ANZSIC is the Australian and New Zealand Standard Industrial Classification and uses the 2006 version (ABS 2006, *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, Information Paper Cat. No. 1292.0, Canberra: Australian Bureau of Statistics).

the case of the chapter on low paid employees, three different definitions of low pay are provided and the results compared.

When it comes to analysing earnings a number of summary measures are available: means, trimmed means, medians and proportions.[5] In addition, where unit record data are available, statistics based on the overall distribution (such as densities) are provided at times.

Despite all the complexity around earnings, the results in this report are not arbitrary but emerge from a careful scientific method. There is a simple decision rule for making interpretations within this process and it is based on the principle of sensitivity analysis, an approach which avoids arbitrary outcomes. The procedure is as follows:

1. present as many variations in the results as possible, using various definitions of populations, earnings units, and statistical measures, and using different datasets whereever possible;
2. if the overall patterns in the results are consistently the same, then these results can be viewed as robust and can be reported in general terms;
3. if the overall patterns are inconclusive, and appear subject to changes in definition or datasets, then the results need to be qualified to reflect this.

This is the procedure followed in this report. At times, it can make for tedious presentation, and appear to be a pedant's delight, but the purpose is deliberate. This process provides confidence in the results and makes the journey of arriving at conclusions more transparent.

Finally, it needs to be kept in mind that most of the data provided in this report come from sample surveys. As such, the results should be regarded as estimates of the underlying population subject to a certain degree of sampling variability, or sampling error. This is the inevitable variability which comes from sampling one group of people rather than a different group and does not reflect on the integrity of the survey. I discuss in more detail below the factors which influence the size of this sampling error and its implications for interpreting results. The ABS data used in this report are usually drawn from surveys with very large samples, and thus the sampling error for an industry such as retail is quite modest. In the case of the HILDA data, the sample sizes are smaller, and consequently the sampling errors can be larger. The issue of sampling errors become more acute as one restricts the population to more precise groups of workers, such as adult full-time non-managerial employees. To move from a sample statistic to a population estimate involves weighting the responses to take account of the sample design. The ABS estimates have already been processed in this way. For the estimates generated from the original HILDA data, the analysis undertaken for this report has applied the appropriate weights.

5. In this report proportions are often expressed as percentages rather than limited to the interval 0 to 1.

2. *Overview of the retail workforce*

The starting point for this analysis is the 2011 Census. It allows one to examine in considerable detail the industries and occupations which make up ANZSIC Division G. The Census has the advantage of providing population counts in a way which is not possible with surveys. Because it is a full enumeration of the workforce, rather than a sample, it is feasible to examine finely disaggregated categories of both industry and occupation. With the Census data it is possible to exclude ANZSIC Subdivisions 39 and 40, and thus identify a workforce which comes close to the national retail workforce relevant to the industrial awards. Most of the ABS survey data which I examine below only provide a Division G population. Fortunately, HILDA data[6] allow one to exclude Subdivisions 39 and 40 and thus provide a relevant retail workforce population.

As at June 2011, ANZSIC Division G was composed of 903,616 employees, of whom 698,790 were adults and 204,826 were juniors. The retail industry (ie. excluding Subdivisions 39 and 40) was composed of 811,136 employees, of whom 615,446 were adults and 195,690 were juniors.

2.1 Industry classes

Industry classes (ANZSIC 4 digit) are the most detailed categories for this coding scheme. The classes which make up the retail industry are shown in Appendix Table A1 and a more concise version of this table, with just the top 20 industry classes, is shown in Table 2.1. These 20 industry classes make up nearly 94% of all employment and 96% among junior employees.

It is worth noting that just six classes make up nearly two-thirds of all employment in the retail industry:

- Supermarket and Grocery Stores: 27.8%;
- Clothing Retailing: 9.7%;
- Department Stores: 8.2%;
- Pharmaceutical, Cosmetic and Toiletry Goods Retailing: 7.7%;
- Hardware and Building Supplies Retailing: 5.8%;
- Electrical, Electronic and Gas Appliance Retailing: 5%.

For juniors these six industry classes contribute nearly 70% of such employment, though this is largely the result of just three industry classes: Supermarket and Gro-

6. HILDA is the Household, Income and Labour Dynamics in Australia survey, funded by the Department of Social Services and designed and managed by the Melbourne Institute of Applied Economic and SocialResearch.

Household situation

Retail households have wage and salary income which is only 84% of that of other-industry households. The combination of government transfers and taxation raises this proportion to 91%. When it comes to expenditure, retail households have similar patterns for non-discretionary items, spending in dollar terms 98% of what other-industry households spent.

In other words, despite having less financial resources, the essential cost of living for retail households was very similar to that for other-industry households. By contrast, in the area of discretionary expenditure retail households spent in dollar terms considerably less—just 81%—of what other-industry households spent. In a sense, retail households found savings that were not possible in the domain of non-discretionary expenditure.

When it comes to financial hardship, the data suggested that retail households faced greater difficulties in raising emergency funds. This suggests that their financial resources are more limited than those of other-industry households.

Overall, both the lower earnings of the retail workforce, and their greater incidence of being low paid, translate into lower living standards at the household level.

cery Stores (36%); Department Stores (10.8%) and Clothing Retailing (9.8%). The concentration of junior employees within two of these industry classes is evident in the following contrast. Whilst juniors make up about 24% of all retail employees, they make up about 31% of employees in Supermarket and Grocery Stores and in Department Stores.

The industry classes which are excluded from analysis when the term 'retail' is used are shown in appendix Table A2. These are the classes which make up subdivisions 39 and 40 within ANZSIC Division G and they total 92,480 employees. These excluded categories are dominated by two classes: car retailing (40,600 employees) and fuel retailing (26,298 employees).

2.2 Occupational unit groups

Occupations are classified according to ANZSCO, the Australian and New Zealand Standard Classification of Occupations, and the Unit Group level data (4 digit) are available from the Census. Most surveys provide only aggregated data, either Major Groups (1 digit) or Sub-Major Groups (2 digit). The occupational profile of the retail industry, based on Unit Groups is shown in detail in Appendix Table A3. This table excludes occupations where the total number of employees was 500 or less.

A more concise version of this table, restricted to the 20 largest occupations, is shown in Table 2.2. These 20 occupations account for over 83% of all employment among retail employees, and this figure reaches nearly 93% among juniors.

2.3 Other characteristics

The retail industry is also distinctive in the large numbers of part-time employees and casual employees who work there. An overview of these characteristics using the HILDA data is shown in Tables 2.3 and 2.4. With 65% of employees working part-time, retail comes close to accommodation and food services (at 68%) for having the highest incident of part-time employment. On the other hand, with 41% of employees engaged as casuals, retail is considerably behind accommodation and food services (at 70%).[7]

7. The definition of casual used for the HILDA data in this report is different to that used by the ABS, which uses a leave entitlements definition. The HILDA definition is based on self-assessed contract of employment. The results for retail are very close, using the ABS definition and data (at 39%) and reasonably close for accommodation and food services (at 65%). See Table A4 in the appendix for the comparable ABS data based on the leave entitlements definition (which also uses Division G, rather than retail).

TABLE 2.1: TOP 20 INDUSTRY CLASSES IN RETAIL

	Counts			*Rows percentages*			*Column percentages*		
Retail industry classes	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Supermarket and Grocery Stores	70,453	155,052	225,505	31.2	68.8	100.0	36.0	25.2	27.8
Clothing Retailing	19,272	59,404	78,676	24.5	75.5	100.0	9.8	9.7	9.7
Department Stores	21,067	45,725	66,792	31.5	68.5	100.0	10.8	7.4	8.2
Pharmaceutical, Cosmetic and Toiletry Goods Retailing	13,705	48,847	62,552	21.9	78.1	100.0	7.0	7.9	7.7
Hardware and Building Supplies Retailing	5,714	41,351	47,065	12.1	87.9	100.0	2.9	6.7	5.8
Electrical, Electronic and Gas Appliance Retailing	5,452	35,405	40,857	13.3	86.7	100.0	2.8	5.8	5.0
Retail Trade, nfd	7,149	33,642	40,791	17.5	82.5	100.0	3.7	5.5	5.0
Other Store-Based Retailing nec	8,047	23,283	31,330	25.7	74.3	100.0	4.1	3.8	3.9
Other Specialised Food Retailing	7,170	14,725	21,895	32.7	67.3	100.0	3.7	2.4	2.7
Liquor Retailing	2,672	15,345	18,017	14.8	85.2	100.0	1.4	2.5	2.2
Newspaper and Book Retailing	5,012	12,266	17,278	29.0	71.0	100.0	2.6	2.0	2.1
Furniture Retailing	1,141	15,591	16,732	6.8	93.2	100.0	0.6	2.5	2.1
Watch and Jewellery Retailing	3,096	13,215	16,311	19.0	81.0	100.0	1.6	2.1	2.0
Fresh Meat, Fish and Poultry Retailing	4,168	11,312	15,480	26.9	73.1	100.0	2.1	1.8	1.9
Footwear Retailing	4,355	10,454	14,809	29.4	70.6	100.0	2.2	1.7	1.8
Sport and Camping Equipment Retailing	2,778	7,921	10,699	26.0	74.0	100.0	1.4	1.3	1.3
Fruit and Vegetable Retailing	2,928	7,762	10,690	27.4	72.6	100.0	1.5	1.3	1.3
Manchester and Other Textile Goods Retailing	1,499	8,517	10,016	15.0	85.0	100.0	0.8	1.4	1.2
Computer and Computer Peripheral Retailing	720	6,283	7,003	10.3	89.7	100.0	0.4	1.0	0.9
Houseware Retailing	1,489	4,897	6,386	23.3	76.7	100.0	0.8	0.8	0.8
Total	187,887	570,997	758,884	21.9	78.1	100.0	96.0	92.8	93.6

Source: 2011 Census. Population: Employees in industry classes within retail (ANZSIC 4 digit). Juniors defined as aged under 21. Adults defined as aged 21 to 99.

TABLE 2.2: LARGEST OCCUPATIONS IN THE RETAIL INDUSTRY, AUSTRALIA 2011

	Counts			*Row percentages*			*Column percentages*		
Occupations	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Sales Assistants (General)	97,403	220,319	317,722	30.7	69.3	100.0	49.8	35.8	39.2
Checkout Operators and Office Cashiers	42,911	36,954	79,865	53.7	46.3	100.0	21.9	6.0	9.8
Retail Managers	3,494	68,278	71,772	4.9	95.1	100.0	1.8	11.1	8.8
Shelf Fillers	14,129	28,123	42,252	33.4	66.6	100.0	7.2	4.6	5.2
Pharmacy Sales Assistants	9,408	20,316	29,724	31.7	68.3	100.0	4.8	3.3	3.7
Storepersons	3,295	19,150	22,445	14.7	85.3	100.0	1.7	3.1	2.8
Retail Supervisors	1,964	19,559	21,523	9.1	90.9	100.0	1.0	3.2	2.7
Butchers and Smallgoods Makers	1,994	8,821	10,815	18.4	81.6	100.0	1.0	1.4	1.3
Pharmacists	218	10,432	10,650	2.0	98.0	100.0	0.1	1.7	1.3
Purchasing and Supply Logistics Clerks	613	9,162	9,775	6.3	93.7	100.0	0.3	1.5	1.2
General Clerks	640	8,876	9,516	6.7	93.3	100.0	0.3	1.4	1.2
Sales Representatives	462	7,708	8,170	5.7	94.3	100.0	0.2	1.3	1.0
Advertising, Public Relations and Sales Managers	53	5,809	5,862	0.9	99.1	100.0	0.0	0.9	0.7
Accounting Clerks	174	5,566	5,740	3.0	97.0	100.0	0.1	0.9	0.7
Packers	1,183	4,429	5,612	21.1	78.9	100.0	0.6	0.7	0.7
Sales Assistants and Salespersons nfd	1,254	4,050	5,304	23.6	76.4	100.0	0.6	0.7	0.7
ICT Sales Assistants	1,383	3,634	5,017	27.6	72.4	100.0	0.7	0.6	0.6
Bakers and Pastrycooks	679	4,247	4,926	13.8	86.2	100.0	0.3	0.7	0.6
Office Managers	94	4,755	4,849	1.9	98.1	100.0	0.0	0.8	0.6
Forklift Drivers	114	3,751	3,865	2.9	97.1	100.0	0.1	0.6	0.5
Total	181,465	493,939	675,404	15.6	84.4	100.0	92.7	80.3	83.3

Source: 2011 Census. Population: Employees in occupations (ANZSCO 4 digit) within the retail industry. Largest 20 occupations. Juniors defined as aged under 21. Adults defined as aged 21 to 99.

TABLE 2.3: FULL-TIME AND PART-TIME EMPLOYEES, AUSTRALIA 2013

Industry	*Full-time*	*Part-time*	*Total*	*Part-time as %*
Agric, forestry, fishing	79,397	21,356	100,753	21.2
Mining	234,305	13,591	247,896	5.5
Manufacturing	653,036	127,606	780,642	16.3
Elect, gas, water, waste	90,600	9,084	99,683	9.1
Construction	522,625	61,391	584,016	10.5
Wholesale trade	301,722	45,630	347,352	13.1
RETAIL	317,356	585,151	902,508	64.8
OTHER DIVISION G	84,517	37,740	122,257	30.9
Accomm and food services	247,600	521,527	769,127	67.8
Trans, postal, warehousing	387,364	97,473	484,837	20.1
Information media, telecomm	141,136	44,074	185,209	23.8
Finance and insurance	341,447	55,244	396,691	13.9
Rental, hiring, real estate	92,057	27,806	119,863	23.2
Profess, scientific tech	573,960	148,740	722,700	20.6
Admin and support services	150,605	87,364	237,969	36.7
Public admin and safety	576,233	85,731	661,964	13.0
Education and training	593,107	403,361	996,468	40.5
Health and social assistance	800,028	649,115	1,449,143	44.8
Arts and recreation services	93,561	78,111	171,673	45.5
Other services	205,181	93,238	298,419	31.2
Total	6,485,837	3,193,333	9,679,169	33.0

Source: Unpublished HILDA data. Population: Employees (excluding owner managers or incorporated enterprises) in main job.

TABLE 2.4: EMPLOYMENT CONTRACT FOR EMPLOYEES, AUSTRALIA 2013

Industry	*Fixed-term*	*Casual*	*Ongoing*	*Total*	*Casuals as %*
Agric, forestry, fishing	11,168	37,100	52,484	100,753	36.8
Mining	24,000	23,326	199,330	247,896	9.4
Manufacturing	40,548	131,768	608,083	780,642	16.9
Elect, gas, water, waste	9,271	6,937	83,476	99,683	7.0
Construction	37,916	121,562	414,915	584,016	20.8
Wholesale trade	36,605	37,690	273,057	347,352	10.9
RETAIL	51,692	368,907	480,142	902,508	40.9
OTHER DIVISION G	10,226	32,549	79,482	122,257	26.6
Accomm and food services	33,098	538,387	194,913	767,990	70.1
Trans, postal, warehousing	46,868	97,528	338,453	482,849	20.2
Information media, telecomm	17,293	25,882	142,034	185,209	14.0
Finance and insurance	27,737	15,221	353,733	396,691	3.8
Rental, hiring, real estate	13,332	19,230	87,300	119,863	16.0
Profess, scientific tech	92,310	75,859	553,399	722,700	10.5
Admin and support services	13,030	66,421	158,081	237,969	27.9
Public admin and safety	65,716	37,107	557,151	661,964	5.6
Education and training	183,593	168,352	643,371	995,650	16.9
Health and social assistance	195,437	193,351	1,044,316	1,434,415	13.5
Arts and recreation services	11,173	70,711	89,180	171,673	41.2
Other services	33,990	60,774	202,720	298,419	20.4
Total	955,005	2,128,661	6,555,620	9,660,497	22.0

Source: Unpublished HILDA data. Population: Employees (excluding owner managers or incorporated enterprises) in main job.

3. Earnings situation of national retail workforce

3.1 Earnings data sourced from households

Census data

The 2011 Census provides information on personal income, which is a more expansive concept than labour market earnings. While for lower paid workers the two are almost synonymous, for higher paid workers they diverge, as the latter may have access to various kinds of property income. This is one limitation in the data; another is that income is presented in brackets rather than as continuous data. In some industries, part-time workers make up only a small proportion of the workforce and thus have minimal influence on the earnings profile. In the case of retail, part-time workers make up a substantial component of the workforce and this strongly influences the earnings profile. This is evident in the difference between the two panels in Table 3.1.

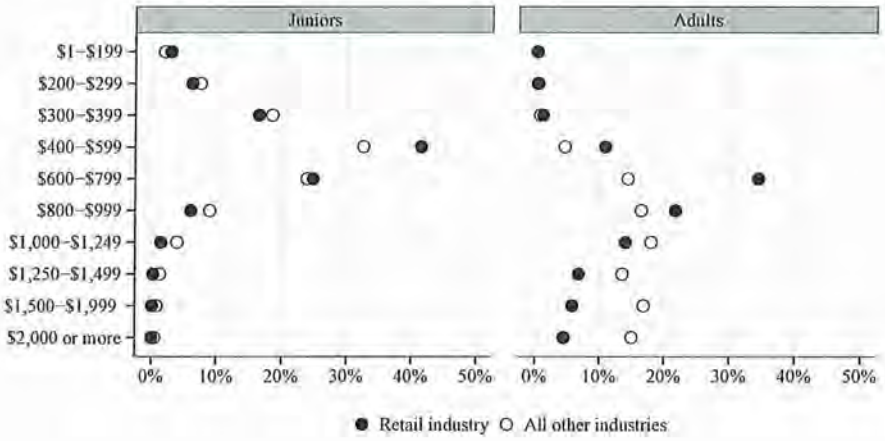
TABLE 3.1: WEEKLY PERSONAL INCOME OF EMPLOYEES, AUSTRALIA 2011

	Retail industry			*Other industries*		
All employees	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
$1–$199	58.0	4.5	17.3	36.1	1.8	4.2
$200–$299	16.1	7.7	9.7	12.8	2.8	3.5
$300–$399	10.6	11.1	11.0	14.0	4.2	4.9
$400–$599	10.0	21.9	19.0	18.7	10.6	11.2
$600–$799	3.9	24.1	19.2	11.3	15.5	15.2
$800–$999	0.9	13.0	10.1	4.0	14.6	13.8
$1,000–$1,249	0.2	8.1	6.2	1.8	15.0	14.0
$1,250–$1,499	0.1	3.9	3.0	0.6	10.9	10.2
$1,500–$1,999	0.0	3.3	2.5	0.4	13.2	12.3
$2,000 or more	0.1	2.5	1.9	0.2	11.5	10.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Full-time employees						
$1–$199	2.9	0.3	0.5	2.0	0.2	0.3
$200–$299	6.2	0.5	0.9	7.5	0.3	0.6
$300–$399	16.6	1.2	2.3	18.6	0.7	1.4
$400–$599	41.5	10.9	13.1	32.6	4.6	5.7
$600–$799	24.8	34.5	33.8	23.9	14.4	14.8
$800–$999	6.0	21.7	20.6	9.0	16.5	16.2
$1,000–$1,249	1.4	14.0	13.1	3.9	18.0	17.4
$1,250–$1,499	0.3	6.8	6.3	1.3	13.5	13.0
$1,500–$1,999	0.1	5.8	5.4	0.8	16.9	16.2
$2,000 or more	0.1	4.5	4.1	0.4	15.0	14.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: 2011 Census. Population: Employees in retail and in all other industries. Juniors defined as aged under 21. Adults defined as aged 21 to 99.

The full-time workforce from this table is shown in Figure 3.1. The most notable feature of these data are the larger proportion of retail workers—compared to workers in other industries—in all income bands below $1,000 per week, and the lower proportion in all income bands above that cut-point. Particularly prominent is the large concentration of adult retail workers in the $600–$799 income band. Nearly 35% of them are in this interval compared with just under 15% in other industries.

FIGURE 3.1: WEEKLY PERSONAL INCOME OF EMPLOYEES, AUSTRALIA 2011



Labour Force Survey

The ABS Labour Force Survey also collects earnings information for employees in its August survey. This is published as Employee Earnings, Benefits and Trade Union Membership (EEBTUM). Like the Census, the data are presented in earnings brackets, though it also provides other measures in the form of means, medians and percentiles. The data showing earnings brackets and percentiles are only published by the ABS at Divisional level, so that Subdivisions 39 and 40 are included in the Division G category. For means and medians there are also data on Subdivisions. The major difficulty with these data are the units and the population: weekly earnings for employees. As noted earlier, the inclusion of substantial numbers of part-timers in this population makes industry comparisons with weekly earnings misleading.

Fortunately, there is one publication in the from the EEBTUM survey where full-time employees are identified and this is the same publication where Subdivisional data are available. The major shortcoming in these data are the inclusion of juniors, but the restriction to full-time employees moderates their impact on the overall results. Within the full-time workforce in Division G, juniors constitute 15% of all employees.

The data for the years from 2009 to 2013 are shown in Table 3.2. The mean weekly earnings for full-time employees in August 2013 was $1,035, which was about 73% of the all-industry average of $1,414. Ignoring non-store retailing—where only 0.05% of the Division G workforce are found—the overall pattern seems to be that employees in motor vehicles and parts retailing earn more than the Divisional G average, while employees in fuel retailing earn less. The two main Subdivisions which constitute the retail workforce relevant to this report—food retailing and other-store based retailing—have very similar earnings and their ratios are very close. These figures suggest that the ratio of earnings for retail employees to the all-industry average is about 72%. While the next chapter deals with trends over time in more detail it is worth noting that

the pattern shown in Table 3.2 suggests a decline in relative earnings for Division G employees from 77% to 73%.

TABLE 3.2: MEAN WEEKLY EARNINGS OF FULL-TIME EMPLOYEES, AUSTRALIA 2013

	Weekly earnings (nominal $)					*Ratio (%)*	
Industry	*2009*	*2010*	*2011*	*2012*	*2013*	*2009*	*2013*
Division G	935	979	1,011	1,076	1,035	77	73
Motor vehicle etc	1,002	1,098	1,031	1,060	1,095	82	77
Fuel retailing	940	913		937	968	77	68
Food retailing	882	944	920	1,047	1,016	72	72
Other store-based	938	965	1,063	1,074	1,021	77	72
Non-store retailing	810	1,076		1,789	1,566	66	111
All industries	1,219	1,263	1,305	1,377	1,414	100	100

Source: ABS, Employee Earnings, Benefits and Trade Union Membership (EEBTUM), August 2013. Spreadsheet: 63100TS0002 Table 5. Population: Full-time employees in main job.

HILDA data

The Household, Income and Labour Dynamics in Australia (HILDA) Survey provides one of the best longitudinal labour market datasets in Australia while also providing a reliable source of cross-sectional data. HILDA is a survey of Australian households, carefully sampled to be representative of the Australian population.[8] Since its inception in 2001 HILDA has provided reliable cross-sectional estimates of the Australian population because of the weights it provides which are regularly calibrated against ABS data. In 2011 the sample was 'refreshed' which further enhanced its value for cross-sectional analysis. In the next chapter I make use of the time-series aspects of HILDA. In this section I provide some 2013 data (the latest available) for weekly earnings and hourly earnings. Because the HILDA dataset is available in unit record form, it is feasible to define the population in flexible ways—such as omitting industry Subdivisions 39 and 40—and to estimate a number of summary measures: such as means, trimmed means, medians and densities. It is also possible to take account of casual employment, and its potential effect on hourly rates of pay.

The main advantage of the HILDA data in this chapter is that one can define the population in a number of different ways and thereby examine the influence of these definitions on the substantive results. This will be informative for the whole of the report, particularly when dealing with datasets where there is little flexibility in the populations examined. Moving through these various populations may seem like a maze at times, so the following conventions are followed. All the tables have the population clearly defined in their notes. In the discussion, when a paragraph begins the population is defined, and then the generic term 'workers' is used for the remainder of that paragraph (or section). This avoids the cumbersome repetition of a string of qualifying adjectives.

For the HILDA discussion the following strategy is employed: the population is steadily expanded and the earnings unit is changed in various ways. The initial popula-

8. For an introduction to the approach behind HILDA see Nicole Watson and Mark Wooden 2002, *The Household, Income and Labour Dynamics in Australia (HILDA) Survey: Wave 1 Survey Methodology*, HILDA Project Technical Paper Series No. 1/02, Melbourne Institute of Applied Economics and Social Research, University of Melbourne.

tion is adult non-managerial full-time employees and the earnings unit is weekly wages in the main job. This is the population which most closely approximates the ABS Employee Earnings and Hours population discussed at length later in this chapter. The next population examined expands this definition to include managers, since various managerial categories are included in the award classifications.[9] The next stage in this process sees the population expanded to all adult employees, which requires a different earnings unit: hourly rates of pay in the main job. This unit is used to retain comparability across industries, since the potential confounding from different proportions of part-time workers is controlled. This is followed by the introduction of an adjusted hourly rate, one which takes account of casual status by deflating their wages by 15%.[10] Finally, the population is further expanded to include non-adult employees and the impact of this on the adjusted rate is noted.

Table 3.3 shows the earnings for this first population—adult non-managerial full-time employees—and Figure 3.2 presents these data graphically (with mining omitted to provide greater clarity). Retail is the second lowest paying industry after accommodation and food services when measured by mean earnings. The mean weekly earnings for these workers are $895 and their median earnings are $850. These represent 65% and 71% respectively of the averages in all industries. While the medians for retail and accommodation and food services are the same, the mean shows a larger difference. The presence of lower paid workers in these industries is evident in these data, with median earnings considerably lower than the mean. The trimmed mean—in which the extreme values in a distribution are eliminated—confirms this. Removing 5% of observations from the top and bottom of the distribution sees the mean for retail workers rise to $909.

9. There are also difficulties with the definition of manager. For the HILDA data the definition is based on the ANZSCO major group category, Manager. The ABS, on the other hand, provides guidance to payroll officers for the selection of managers based on their functional role within the organisation.

10. In recent years researchers have deflated the earnings of casuals by varying amounts. Watson and Dunlop used a figure of 15% while Healy used a figure of 20%. See Ian Watson 2005, 'Contented Workers in Inferior Jobs: Re-assessing Casual Employment in Australia', in: *Journal of Industrial Relations* Vol. 47. No. 4, pp. 371–392, Y. Dunlop 2000, *Labour Market Outcomes of Low Paid Adult Workers*, Occasional Paper (6293.0.00.005.) Australian Bureau of Statistics and Josh Healy 2010, *The Minimum Wage Workforce in Australia: Extending the Evidence*, Working Paper No. 162, Flinders University, SA: National Institute of Labour Studies.

TABLE 3.3: AVERAGE WEEKLY WAGES, ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2013

Industry	*Mean*	*Ratio (%)*	*Median*	*Ratio (%)*
Agric, forestry, fishing	$909	66	$880	74
Mining	$2,393	174	$2,296	193
Manufacturing	$1,293	94	$1,151	97
Elect, gas, water, waste	$1,692	123	$1,600	134
Construction	$1,561	114	$1,268	107
Wholesale trade	$1,193	87	$1,003	84
RETAIL	$895	65	$850	71
OTHER DIVISION G	$952	69	$863	73
Accomm and food services	$835	61	$849	71
Trans, postal, warehousing	$1,358	99	$1,167	98
Information media, telecomm	$1,579	115	$1,473	124
Finance and insurance	$1,671	122	$1,335	112
Rental, hiring, real estate	$1,319	96	$1,050	88
Profess, scientific tech	$1,598	116	$1,380	116
Admin and support services	$913	67	$813	68
Public admin and safety	$1,433	104	$1,381	116
Education and training	$1,377	100	$1,384	116
Health and social assistance	$1,227	89	$1,097	92
Arts and recreation services	$1,024	75	$1,000	84
Other services	$1,063	78	$980	82
All industries	$1,372	100	$1,190	100

Source: Unpublished HILDA data. Population: adult non-managerial full-time employees.

FIGURE 3.2: AVERAGE WEEKLY WAGES, ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2013

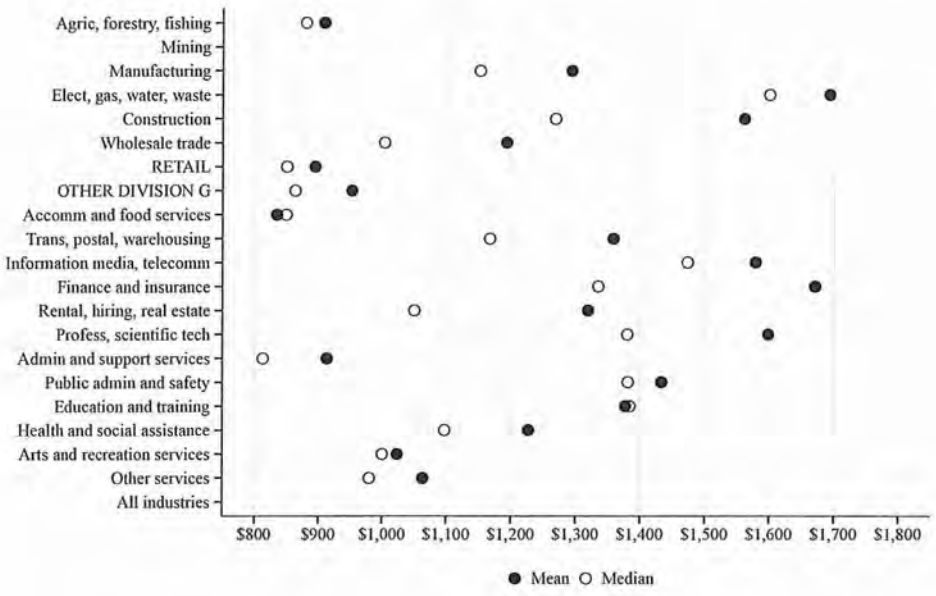


Table 3.4 presents the data for the second population, that is, adult full-time em-
2 ployees. Retail and accommodation and food services are again among the lowest

paying industries, together with administrative and support services and agriculture, forestry and fishing.[11]

The median measure is again lower in retail—$900 compared with $981—but the gap between the two is less than in some other industries where the presence of high wage earnings inflates the mean (finance and insurance services is notable in this respect). The ratio of earnings in retail to the all-industry average is 67% for the mean and 72% for the median. The effect of including managers in the population not surprisingly increases both the mean and median earnings, but has little influence on the relative position of retail vis-à-vis other industries.

TABLE 3.4: AVERAGE WEEKLY WAGES, ADULT FULL-TIME EMPLOYEES, AUSTRALIA 2013

Industry	*Mean*	*Ratio (%)*	*Median*	*Ratio (%)*
Agric, forestry, fishing	$960	66	$900	72
Mining	$2,429	166	$2,300	184
Manufacturing	$1,388	95	$1,200	96
Elect, gas, water, waste	$1,740	119	$1,690	135
Construction	$1,717	117	$1,343	107
Wholesale trade	$1,359	93	$1,100	88
RETAIL	$981	67	$900	72
OTHER DIVISION G	$1,014	69	$876	70
Accomm and food services	$930	64	$871	70
Trans, postal, warehousing	$1,404	96	$1,208	97
Information media, telecomm	$1,685	115	$1,534	123
Finance and insurance	$1,829	125	$1,400	112
Rental, hiring, real estate	$1,369	94	$1,090	87
Profess, scientific tech	$1,730	118	$1,427	114
Admin and support services	$972	66	$880	70
Public admin and safety	$1,555	106	$1,495	120
Education and training	$1,474	101	$1,444	116
Health and social assistance	$1,265	87	$1,100	88
Arts and recreation services	$1,077	74	$1,040	83
Other services	$1,130	77	$1,000	80
All industries	$1,462	100	$1,250	100

Source: Unpublished HILDA data. Population: adult full-time employees.

Expanding the population to all adult employees (Table 3.5) does not change the overall rankings for these low paying industries but it does increase the ratios for retail to 75% for the mean and 77% for the median. These data show that the hourly rates for adult workers in retail are $24 (mean) $22 (median).

11. Agriculture, forestry and fishing are shown in the HILDA data though these are usually omitted from ABS earnings data. Caution is required in comparisons with this industry because of the in-kind component of earnings often provided by employers, such as accommodation.

TABLE 3.5: AVERAGE HOURLY WAGES, ADULT EMPLOYEES, AUSTRALIA 2013

Industry	*Mean*	*Ratio (%)*	*Median*	*Ratio (%)*
Agric, forestry, fishing	$22	69	$20	73
Mining	$49	152	$46	165
Manufacturing	$31	96	$28	98
Elect, gas, water, waste	$41	126	$40	143
Construction	$35	108	$30	105
Wholesale trade	$31	96	$26	92
RETAIL	$24	75	$22	77
OTHER DIVISION G	$23	70	$22	77
Accomm and food services	$21	65	$20	71
Trans, postal, warehousing	$31	95	$26	94
Information media, telecomm	$38	116	$34	121
Finance and insurance	$41	126	$33	117
Rental, hiring, real estate	$30	92	$26	92
Profess, scientific tech	$40	121	$31	111
Admin and support services	$24	73	$23	81
Public admin and safety	$38	118	$36	128
Education and training	$34	105	$31	112
Health and social assistance	$31	94	$28	100
Arts and recreation services	$26	81	$26	94
Other services	$27	82	$24	88
All industries	$33	100	$28	100

Source: Unpublished HILDA data. Population: adult employees.

Taking account of the casual status of adult employees sees the hourly rates fall to $23 (mean) $21 (median) and the ratios drop to 73% (mean) and 75% (median). A much larger drop in earnings with this population is evident in accommodation and food services, an industry with a high proportion of casuals.

TABLE 3.6: AVERAGE HOURLY WAGES, ADULT EMPLOYEES, AUSTRALIA 2013

Industry	*Mean*	*Ratio (%)*	*Median*	*Ratio (%)*
Agric, forestry, fishing	$21	67	$19	69
Mining	$49	153	$46	167
Manufacturing	$31	96	$27	98
Elect, gas, water, waste	$41	128	$40	145
Construction	$34	107	$29	105
Wholesale trade	$31	97	$25	91
RETAIL	$23	73	$21	75
OTHER DIVISION G	$22	70	$21	76
Accomm and food services	$20	61	$19	67
Trans, postal, warehousing	$30	95	$26	95
Information media, telecomm	$37	117	$34	123
Finance and insurance	$41	128	$33	119
Rental, hiring, real estate	$29	91	$26	93
Profess, scientific tech	$39	122	$31	112
Admin and support services	$23	72	$21	78
Public admin and safety	$38	119	$35	128
Education and training	$33	104	$31	111
Health and social assistance	$30	95	$28	101
Arts and recreation services	$25	79	$25	91
Other services	$26	82	$24	86
All industries	$32	100	$28	100

Source: Unpublished HILDA data. Population: adult employees. Hourly rate adjusted for casuals to 85%.

Finally, expanding the population to include non-adults sees the hourly rates in retail fall further to $21 (mean) $20 (median) and the ratios drop to 69% (mean) and 76% (median). Again, the most notable change is in the earnings for accommodation and food services where large numbers of casual workers are found.

TABLE 3.7: AVERAGE HOURLY WAGES, EMPLOYEES, AUSTRALIA 2013

Industry	*Mean*	*Ratio (%)*	*Median*	*Ratio (%)*
Agric, forestry, fishing	$20	66	$18	71
Mining	$48	159	$45	173
Manufacturing	$30	98	$26	99
Elect, gas, water, waste	$41	135	$40	153
Construction	$32	107	$27	105
Wholesale trade	$31	102	$25	96
RETAIL	$21	69	$20	76
OTHER DIVISION G	$21	71	$21	79
Accomm and food services	$16	54	$16	60
Trans, postal, warehousing	$30	100	$26	100
Information media, telecomm	$36	121	$32	124
Finance and insurance	$40	134	$32	124
Rental, hiring, real estate	$28	95	$26	98
Profess, scientific tech	$38	127	$30	115
Admin and support services	$23	75	$21	81
Public admin and safety	$38	126	$35	134
Education and training	$33	109	$30	116
Health and social assistance	$30	99	$27	105
Arts and recreation services	$23	75	$22	84
Other services	$24	80	$21	81
All industries	$30	100	$26	100

Source: Unpublished HILDA data. Population: employees. Hourly rate adjusted for casuals to 85%.

While means and medians, taken together, are a useful indication of the central tendency in a distribution, it is also informative to consider the whole distribution. This is sometimes done by binning the data—such as the income brackets shown earlier—and an extension of this approach is the density plot.[12] Figures 3.3 and 3.4 show density plots for the retail workforce for weekly and hourly earnings. The former is for adult non-managerial full-time employees, the latter for all adult employees.

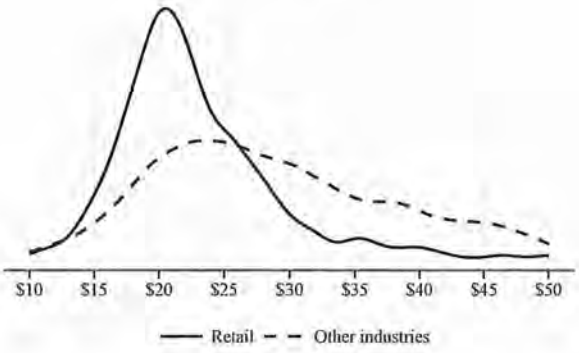
Both figures show that the retail workforce is concentrated towards the bottom of the overall earnings distribution. In the case of weekly earnings, there is a large concentration of retail workers at around $800 per week; for hourly earnings, the concentration, or 'bulge', is around $21 per hour. There appears to be tighter clustering for weekly earnings compared to hourly earnings among the retail workforce. This reflects the greater uniformity in earnings in the adult non-managerial full-time workforce compared to a workforce that includes part-timers and managers. Among the later there is more dispersion in earnings, evident in the very bottom of the distribution and in the range between $25 and $30 per hour.[13]

12. Density plots are characterised by summing to unity, and one can thus directly compare two different distributions since they are equivalently scaled. In other words, the surface area under the curves for two distributions will be equal. Bulges in one area indicate concentrations of individuals in that part of the distribution and comparing bulges between two different distributions is particularly informative. Finally, a more highly peaked density indicates a more unequal distribution of earnings.

13. The coefficient of variation, a standardised measure of dispersion, confirms this visual impression: the figure for weekly earnings is 0.56 while the hourly earnings is 0.63.

FIGURE 3.3: DISTRIBUTION OF WEEKLY EARNINGS, ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2013

FIGURE 3.4: DISTRIBUTION OF HOURLY EARNINGS, ADULT EMPLOYEES, AUSTRALIA 2013



The next section looks at the ABS employer-based survey, Employee Earnings and Hours (EEH). This survey collects information on pay setting methods and will be used to present earnings results for different pay setting methods. HILDA has also collected information on pay setting methods since 2008 though doubts have arisen as to the accuracy of the information provided by household members to this kind of question.[14] To illustrate an important difference between the most restricted population—adult non-managerial full-time employees—and the most expansive population—all employees—the HILDA results for pay setting methods are shown in Table 3.8.

The most illuminating aspect of Table 3.8 is the relative importance of the award for all retail employees: its reach is 42% among this population, compared with 29% for the most restrictive retail population. The heavy reliance on the award within the retail industry is also evident in these data. In other industries—among all employees—the percentage is only 25%, dropping to 19% for the more restrictive population.

14. For a discussion of this issue and comparisons with EEH, see Roger Wilkins and Mark Wooden 2011, *Measuring Minimum Award Wage Reliance in Australia: The HILDA Survey Experience*, Working Paper 11/11, University of Melbourne: Melbourne Institute of Applied Economic and Social Research.

TABLE 3.8: EMPLOYEES BY METHOD OF SETTING PAY, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Employees	*Retail trade*	*Other industries*	*Total*	*Retail trade*	*Other industries*	*Total*
Award	364	2,178	2,542	42	25	27
Collective agreement	231	2,857	3,088	27	33	33
Individual agreement	269	3,518	3,787	31	41	40
Total	864	8,553	9,417	100	100	100
Adult non-man FT empees						
Award	63	930	993	29	19	19
Collective agreement	60	1,983	2,044	28	40	39
Individual agreement	94	2,087	2,181	43	42	42
Total	218	5,000	5,218	100	100	100

Source: unpublished HILDA data. Populations: all employees (top panel) and adult non-managerial full-time employees (bottom panel).

3.2 Data sourced from employers

Employee Earnings and Hours

As well as its household surveys the ABS also surveys employers. In May of every second year the ABS conducts the Employee Earnings and Hours (EEH) survey in which it samples approximately 8,000 employers from its Business Register. This is a two-stage sampling procedure, and in the second stage employers randomly select employees from their payroll and complete questionnaires about their earnings and hours. In all, data on about 55,000 employees are collected for EEH. One of the advantages of this survey is that the employer payroll is the source of the information, rather than the self-reporting of individuals. In addition, the survey distinguishes junior rates from adult rates (as well as trainee, apprentice, and disability rates). The survey also identifies owner managers of incorporated enterprises. Methods of setting pay are also identified. Finally, data are provided for both hourly earnings and weekly earnings, and distinctions are made between ordinary time earnings, overtime earnings and total earnings. Because of these fine distinctions, EEH is the pre-eminent dataset for analysing employee earnings in an industrial relations context. Its only real disadvantage is the two-yearly interval in its collection, though fortunately the 2014 results have recently become available.

There are four main populations identified in EEH:

1. all employees, which includes owner managers of incorporated enterprises;
2. non-managerial employees, which excludes owner managers of incorporated enterprises;
3. full-time non-managerial employees paid at adult rates, which also excludes owner managers of incorporated enterprises. This category includes a very small number of employees (about 6,500) aged between 18 and 20;
4. full-time non-managerial adult employees, which excludes owner managers of incorporated enterprises;

While EEH does provide data on industry Subdivisions (see below), for the methods of setting pay only industry Division data are available. These data are summarised

in Table 3.9, which compares Division G with all industries. Only the first three populations are available for the pay setting data, and for ease of expression I will refer to population (3) as full-time adult employees (populations 3 and 4 are essentially the same group of employees given this very small number of individuals in the 18 to 20 age range).

Looking first at its largest population—all employees—Division G consists of about 1.1 million employees, of whom about 25,200 are owner managers. The distribution of these Division G employees across the pay setting methods is quite distinctive: some 28.5% are on award only provisions, compared with an all-industry average of just 18.8%. The collective agreement profile is similar, but individual agreements are less common in Division G. Looking at the non-managerial employee workforce—which also entails excluding owner-managers—changes these results very little.

On the other hand, focusing on full-time adult employees shows some major differences. The exclusion of part-time employees sees the numbers employed in Division G drop dramatically—to just under 400 thousand—and the proportion on awards fall slightly to 25.4%. By contrast, the all-industry average for awards drops proportionally much greater as one moves to the full-time adult workforce. What is most striking about the full-time adult workforce in Division G is the marked drop in Collective agreements and the increase in Individual agreements. The former nearly halve when moving from non-managerial employees to full-time adult employees, but barely change at the all-industry level. The shift is toward individual agreements: more than half of all full-time adult employees in Division G are employed on these arrangements. One can deduce from this that for the part-time workforce in Division G awards and collective agreements are much more important than individual agreements.

TABLE 3.9: EMPLOYEES BY METHOD OF SETTING PAY, AUSTRALIA 2014

All employees	*Award only*	*Collective agreement*	*Individual agreement*	*Owner manager*	*All methods*
Division G (counts)	320,300	469,500	307,300	25,200	1,122,300
All industries (counts)	1,860,700	4,070,100	3,627,700	340,300	9,898,900
Division G (percentages)	28.5	41.8	27.4	2.2	100.0
All industries (percentages)	18.8	41.1	36.6	3.4	100.0
Non-managerial employees					
Division G (counts)	320,300	468,100	293,200		1,081,600
All industries (counts)	1,852,000	3,937,700	3,270,200		9,059,900
Division G (percentages)	29.6	43.3	27.1		100.0
All industries (percentages)	20.4	43.5	36.1		100.0
FT non-man at adult rates					
Division G (counts)	101,000	88,700	208,000		397,600
All industries (counts)	639,200	2,101,700	2,282,000		5,022,800
Division G (percentages)	25.4	22.3	52.3		100.0
All industries (percentages)	12.7	41.8	45.4		100.0

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheets: 63060do002 201405 Table 4, 63060do005 201405 Table 4, 63060do007 201405 Table 3. Populations: employees as shown.

Turning now to the earnings of employees in Division G, the hourly earnings are appropriate for population (1), all employees. The inclusion of substantial numbers of part-timers in this population would make comparisons using the weekly earnings misleading.

Figure 3.5 provides an overview of the average hourly total cash earnings of all employees while Figure 3.6 shows a more detailed breakdown of these data. The source for both these graphs is Table 3.10.

FIGURE 3.5: AVERAGE HOURLY TOTAL CASH EARNINGS, AUSTRALIA 2014

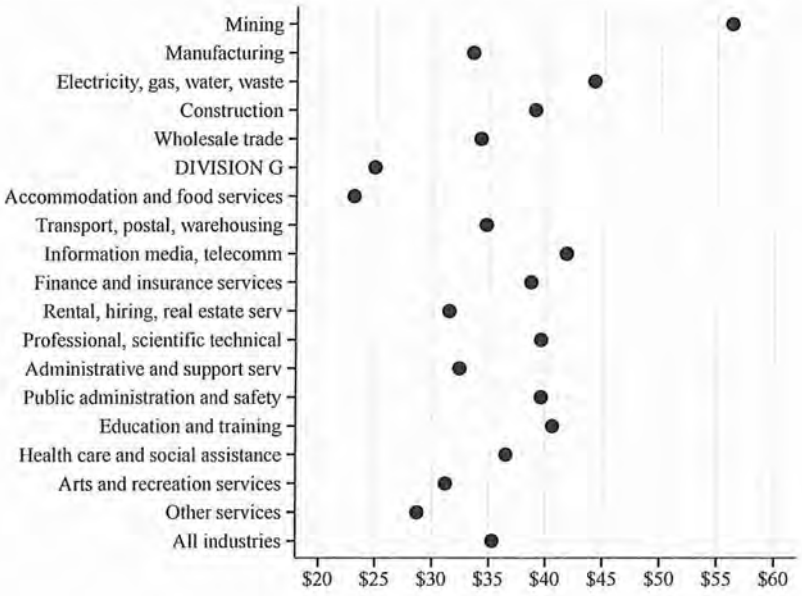


TABLE 3.10: AVERAGE HOURLY TOTAL CASH EARNINGS BY METHOD OF SETTING PAY, AUSTRALIA 2014

Industry	*Award only*	*Collective agreement*	*Individual agreement*	*All methods*
Mining	$27.80	$53.10	$58.60	$56.20
Manufacturing	$22.90	$33.70	$36.40	$33.50
Electricity, gas, water, waste	$26.10	$45.90	$44.90	$44.20
Construction	$21.20	$49.40	$36.90	$39.00
Wholesale trade	$24.30	$34.70	$35.80	$34.20
DIVISION G	$22.60	$22.40	$29.50	$24.90
Accommodation and food services	$22.80	$21.80	$25.20	$23.10
Transport, postal, warehousing	$26.90	$37.70	$32.30	$34.70
Information media, telecomm	$24.20	$42.70	$42.50	$41.80
Finance and insurance services	$23.20	$38.40	$40.80	$38.70
Rental, hiring, real estate serv	$21.90	$33.00	$34.30	$31.50
Professional, scientific technical	$23.90	$40.60	$41.00	$39.60
Administrative and support serv	$25.40	$34.70	$36.60	$32.40
Public administration and safety	$39.90	$39.90	$35.80	$39.60
Education and training	$27.70	$41.60	$36.00	$40.60
Health care and social assistance	$32.80	$38.40	$34.20	$36.50
Arts and recreation services	$23.40	$31.50	$34.30	$31.20
Other services	$23.80	$33.60	$29.70	$28.70
All industries	$25.90	$37.80	$36.70	$35.30
Ratio *	87.3	59.3	80.4	70.5

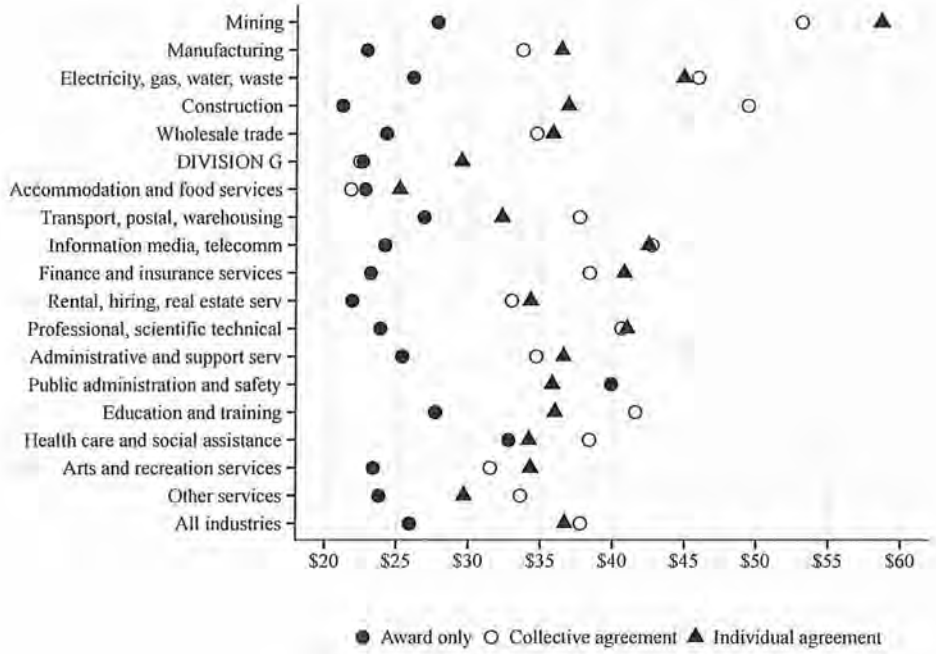
Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheet 63060do005 201405 Table 4. Population: Non-managerial employees. Note: * ratio of Division G employees to the all-industry average.

The most notable feature of Figure 3.5 is the location of the average hourly earnings of Division G employees: they earn the second lowest amount behind accommodation and food services, with Division G employees on $24.90 per hour and accommodation and food services employees on $23.10. The all-industry average is $35.30.

The breakdown by method of setting pay shows that there is little difference in Division G between award only employees and those on collective agreements: 20 cents an hour. Looking at these pay setting methods helps explain the overall difference between Division G employees and those in accommodation and food services. The award only employees in Division G earn less than those in accommodation and food services (20 cents), slightly more if on collective agreements (60 cents) and considerably more ($4.30) if on individual agreements. In other words, it is largely the employees on individual agreements in Division G which lift the overall average of those employees above those in accommodation and food services.

The ratio figure at the bottom of Table 3.10 shows the percentage of the all-industry average accounted for by Division G. It is a useful way to measure the relative standing of Division G employees vis-à-vis other industries. Overall, employees in Division G earn about 70.5% of the all-industry average. Among award only employees the figure is 87.3% but drops to 59.3% for those on collective agreements. Division G employees on individual agreements earn about 80.4%.

FIGURE 3.6: AVERAGE HOURLY TOTAL CASH EARNINGS BY METHOD OF SETTING PAY, AUSTRALIA 2014



Turning to weekly earnings requires that one limit the population to non-managerial full-time employees, in this case population (4) above. In the following discussion the term employee is used to refer to this population. Figure 3.7 provides an overview of the average weekly total cash earnings of non-managerial full-time employees while Figure 3.8 shows the more detailed breakdown of these data. The data for these graphs are shown in Table 3.11.

The weekly profile follows the hourly profile with Division G employees the second lowest paid employees just ahead of accommodation and food services. The former earn $1,069.30 per week; the latter are on $1,024.40; and the all-industry average is $1,509.30.

The breakdown by methods of setting pay is illuminating in understanding the comparison between these two industries. Division G award only employees (on $907.90) are behind their counterparts in accommodation and food services (on $954.00) by $46.10. They are also behind them if they are on collective agreements: Division G employees earn $944.30 while those in accommodation earn $1,108.00—a gap of $163.70. It is those employees on individual agreements who lift the overall average for Division G employees. These workers earn $1,201.00 compared with $1,039.30, a lead of $161.70.

Finally, the ratios for the weekly earnings closely follow those for hourly earnings, with an overall average for Division G of 70.8%. Both award only employees and employees on individual agreements in Division G earn about 79.4% of the all-industry average, while the collective agreement ratio is just 58.4%.

FIGURE 3.7: AVERAGE WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

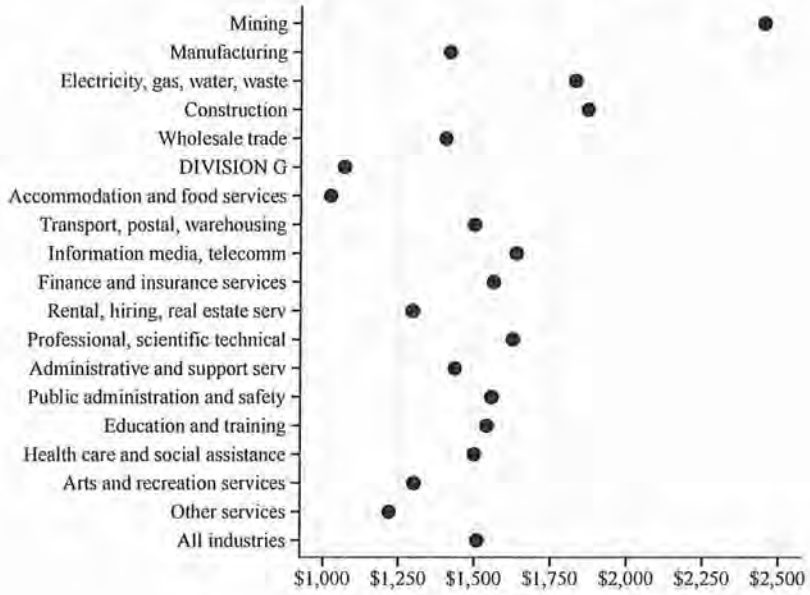
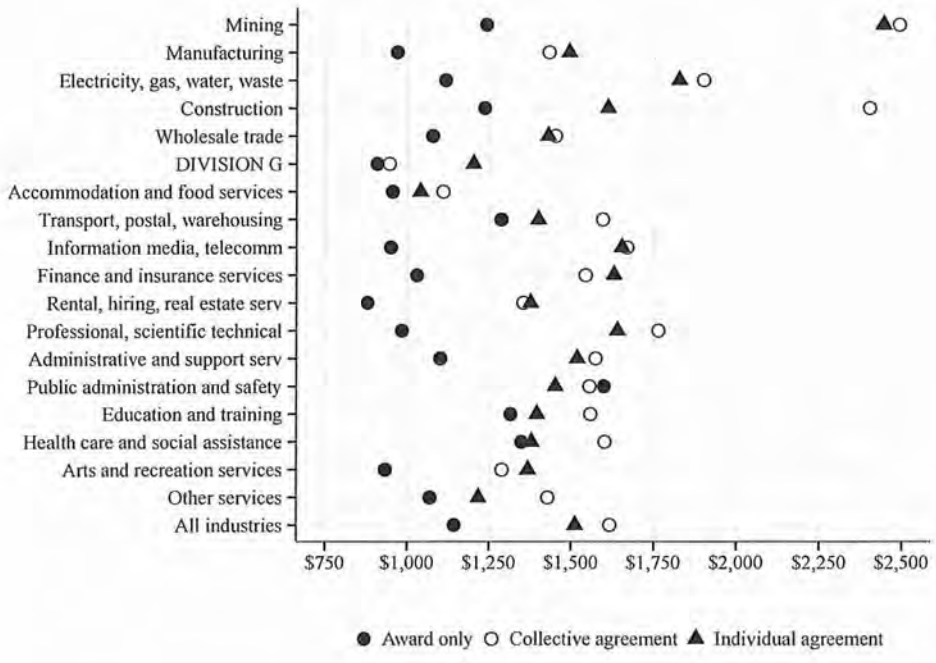


TABLE 3.11: AVERAGE WEEKLY TOTAL CASH EARNINGS BY METHOD OF SETTING PAY, AUSTRALIA 2014

Industry	*Award only*	*Collective agreement*	*Individual agreement*	*All methods*
Mining	$1,240	$2,490	$2,442	$2,452
Manufacturing	$968	$1,431	$1,492	$1,416
Electricity, gas, water, waste	$1,115	$1,900	$1,826	$1,829
Construction	$1,235	$2,401	$1,610	$1,871
Wholesale trade	$1,076	$1,451	$1,429	$1,403
DIVISION G	$908	$944	$1,201	$1,069
Accommodation and food services	$954	$1,108	$1,039	$1,024
Transport, postal, warehousing	$1,286	$1,595	$1,400	$1,500
Information media, telecomm	$950	$1,669	$1,653	$1,638
Finance and insurance services	$1,029	$1,543	$1,630	$1,563
Rental, hiring, real estate serv	$879	$1,354	$1,376	$1,295
Professional, scientific technical	$983	$1,764	$1,640	$1,626
Administrative and support serv	$1,101	$1,574	$1,518	$1,435
Public administration and safety	$1,599	$1,556	$1,452	$1,557
Education and training	$1,315	$1,558	$1,396	$1,541
Health care and social assistance	$1,349	$1,602	$1,379	$1,500
Arts and recreation services	$933	$1,289	$1,368	$1,300
Other services	$1,069	$1,429	$1,217	$1,219
All industries	$1,143	$1,617	$1,512	$1,509
Ratio *	79.4	58.4	79.4	70.8

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheet 63060do007 201405 Table 3. Population: Full-time non-managerial employees paid at adult rate. Note: * ratio of Division G employees to the all-industry average.

FIGURE 3.8: AVERAGE WEEKLY TOTAL CASH EARNINGS BY METHOD OF SETTING PAY, AUSTRALIA 2014



Averages are an informative measure of employee earnings when the population is relatively uniform. However, when there is considerable variation in the population, averages can be misleading. In the case of earnings, most distributions are skewed positively, meaning that they have a long tail to the right, where higher earnings are found. This can make averages, such as the mean, overstate the level of earnings. In many cases, median earnings (or trimmed means) are a more reliable measure. In general, insights into the overall distribution, when coupled with measures of central tendency, are the best approach to evaluating the earnings situation of an employee. Many surveys only present means in their published findings, but where the data are available as unit records (as with the HILDA survey) it is possible to construct one's own statistics. Some surveys, as well as the Census, present their income or earnings data as in brackets (called bins). Some surveys also present percentiles of the distribution. Fortunately, the EEH provides its weekly earnings data as both brackets and as percentiles. Both of these provide useful insights.

Figure 3.9 shows the distribution of weekly total cash earnings for full-time adult employees in Division G and Table 3.12 shows the data which lie behind this graph. These data compare the Division G distribution with that of all industries. In all intervals in the range between $600 and $1,100 per week Division G employees are considerably over-represented, and this is particularly notable in the $700 to $900 per week range. More than one third of all Division G employees are clustered in this range. By contrast, the equivalent figure for all industries is just under 13%. In terms of the cumulative distribution (columns 6 and 7 of Table 3.12), some two-thirds of Division G employees earn below $1,100 per week. The comparable all-industry figure is just under one third.

FIGURE 3.9: DISTRIBUTION OF WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

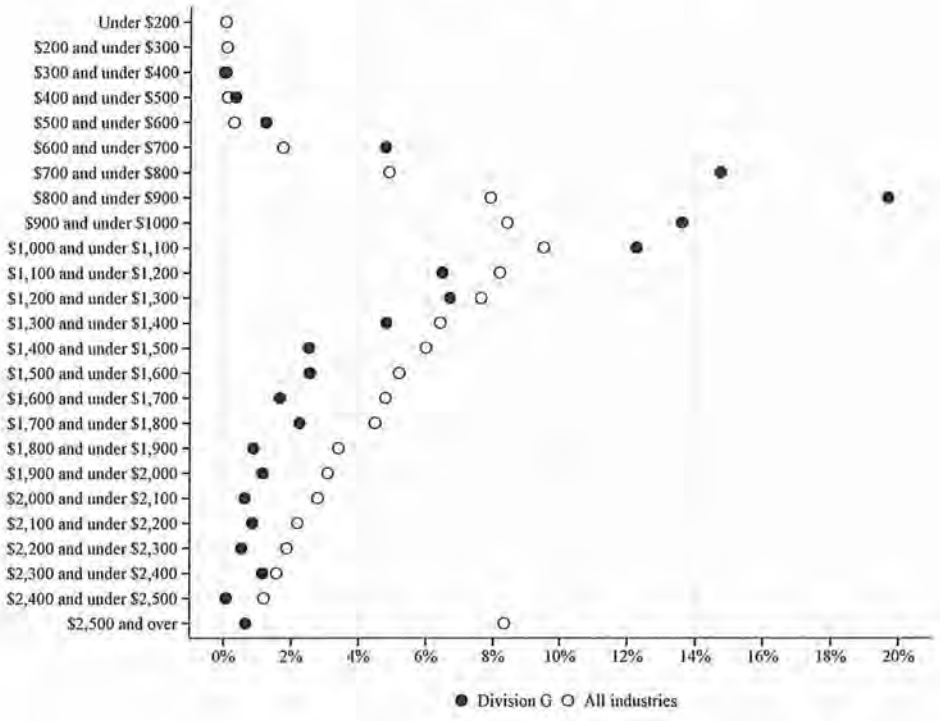


TABLE 3.12: DISTRIBUTION OF WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

Earnings	*Counts*		*Percentages*		*Cumulative %*	
	Division G	*All industries*	*Division G*	*All industries*	*Division G*	*All industries*
Under $200		1,800		0.0	0.0	0.0
$200 and under $300		3,800		0.1	0.0	0.1
$300 and under $400	0	2,400	0.0	0.0	0.0	0.2
$400 and under $500	1,300	4,900	0.3	0.1	0.3	0.3
$500 and under $600	4,900	14,200	1.2	0.3	1.6	0.5
$600 and under $700	19,000	87,000	4.8	1.7	6.3	2.3
$700 and under $800	58,500	245,100	14.7	4.9	21.1	7.2
$800 and under $900	78,200	396,900	19.7	7.9	40.7	15.1
$900 and under $1000	54,000	421,700	13.6	8.4	54.3	23.4
$1,000 and under $1,100	48,700	477,200	12.2	9.5	66.5	32.9
$1,100 and under $1,200	25,700	410,900	6.5	8.2	73.0	41.1
$1,200 and under $1,300	26,600	383,100	6.7	7.6	79.7	48.8
$1,300 and under $1,400	19,100	321,500	4.8	6.4	84.5	55.2
$1,400 and under $1,500	10,000	300,800	2.5	6.0	87.0	61.1
$1,500 and under $1,600	10,100	261,000	2.5	5.2	89.6	66.3
$1,600 and under $1,700	6,600	240,300	1.7	4.8	91.2	71.1
$1,700 and under $1,800	8,900	225,100	2.2	4.5	93.5	75.6
$1,800 and under $1,900	3,500	170,800	0.9	3.4	94.3	79.0
$1,900 and under $2,000	4,600	154,200	1.2	3.1	95.5	82.1
$2,000 and under $2,100	2,500	139,900	0.6	2.8	96.1	84.9
$2,100 and under $2,200	3,400	109,600	0.9	2.2	97.0	87.0
$2,200 and under $2,300	2,100	93,500	0.5	1.9	97.5	88.9
$2,300 and under $2,400	4,600	78,500	1.2	1.6	98.7	90.5
$2,400 and under $2,500	300	59,700	0.1	1.2	98.7	91.7
$2,500 and over	2,600	418,800	0.7	8.3	99.4	100.0
Total	397,600	5,022,800	100.0	100.0	100.0	100.0

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheet 63060do008 201405 Table 9. Population: Full-time non-managerial employees paid at adult rate.

If one contrasts these distributional figures with the averages shown earlier—in Table 3.11—it becomes apparent that Division G data are positively skewed. The average—at $1,069.30—is by no means the 'middle' of the distribution with two-thirds of employees falling below this. It is for reasons like these that medians are often preferred.

Fortunately, EEH also provides a percentile distribution of weekly earnings and these are shown in Figure 3.10 and Table 3.13. The median earnings for Division G employees is $950 per week, considerably below the mean. The all-industry median is $1,320, so the gap for Division G employees is considerable: $370 per week. This amounts to a 28% gap. Figure 3.10 shows how this gap increases steadily across the distribution, increasing from a modest 12.8% to reach the 30% range across the top half of the distribution. This growing gap shows that more highly paid Division G employees also fall well behind their all-industry counterparts. Indeed, someone at the 80th percentile in the Division G workforce is only earning the median (50th percentile) all-industry wage.

FIGURE 3.10: PERCENTILES OF WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

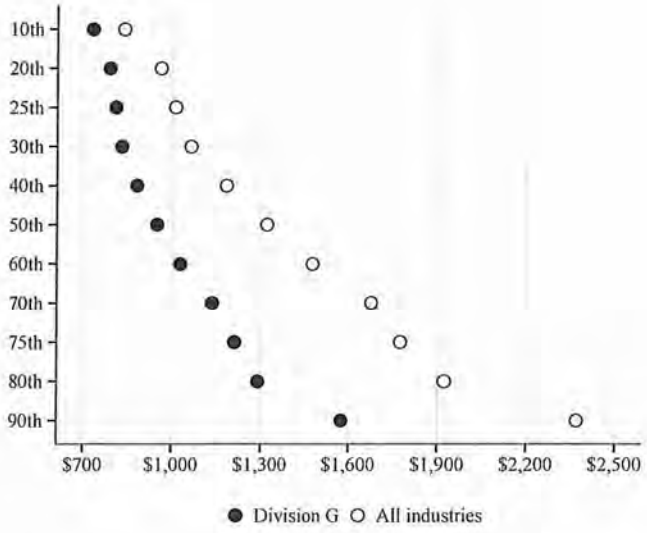


TABLE 3.13: PERCENTILES OF WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

Percentile	*Division G*	*All industries*	*Dollar gap*	*Percentage gap*
10th	$731	$838	$107	13
20th	$789	$962	$173	18
25th	$810	$1,011	$201	20
30th	$830	$1,064	$234	22
40th	$882	$1,184	$302	26
50th	$950	$1,320	$370	28
60th	$1,029	$1,477	$448	30
70th	$1,137	$1,676	$539	32
75th	$1,212	$1,774	$562	32
80th	$1,290	$1,923	$633	33
90th	$1,575	$2,370	$795	34

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheet 63060do008 201405 Table 10. Population: Full-time non-managerial employees paid at adult rate.

All of the analysis for EEH so far has been based on Division G, the more expansive retail industry grouping. As mentioned earlier, this includes Subdivisions 39 and 40 (motor vehicle, parts and fuel retailing), whose employees make up about 10% of the Division G workforce. How much does the inclusion of these two Subdivisions influence the Division G results which have just been discussed?

Fortunately, EEH does provide some data at the level of industry Subdivisions, though it only does so for non-managerial full-time employees paid at the adult rate. Consequently, one can only cross-check the findings for weekly earnings. These data are shown in Table 3.14 with some additional information on ordinary time earnings, overtime earnings and total earnings. It is the latter which is the basis for comparisons with the earlier tables.

TABLE 3.14: AVERAGE WEEKLY TOTAL CASH EARNINGS, AUSTRALIA 2014

Industry	*Weekly earnings*			*Ratios to all industries*		
	Ordinary time	*Overtime*	*Total*	*Ordinary time*	*Overtime*	*Total*
Motor vehicle etc	$1,080	$30	$1,110	75	38	74
Fuel retailing			$1,042			69
Food retailing	$1,079	$11	$1,090	75	14	72
Other store-based	$1,002	$34	$1,037	70	44	69
Non-store retailing			$1,240			82
All industries	$1,431	$78	$1,509	100	100	100

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheet 63060do015 201405 Table 1. Population: Full-time non-managerial employees paid at adult rate.

The results for the totals in food retailing and other-store retailing in Table 3.14 are very close to those for the Division G totals in Table 3.11. The higher earnings figure in non-store retailing would have little impact on the average, as the number of employees in this category is very small (about 0.05% of the Division G workforce). It is more likely that the higher earnings in motor vehicle retailing more than offsets the lower earnings in fuel retailing and thus lifts the overall average to come close to that in the Division G total. It needs to be kept in mind that there are about twice as many employees in motor vehicle retailing as in fuel retailing. In other words, the influence of Subdivisions 39 and 40 almost cancel each other out, except to lift the figure for Division G slightly. This is also evident in the ratios. The most notable outlier here—non-store retailing—is the least influential category—and thus it would appear that the Division G average of 70.8% (Table 3.11) is also a reasonable figure for the retail industry. The affect of including Subdivisions 39 and 40—which is unavoidable in the Division G reporting—has minimal effect, except to slightly inflate the overall average.

As a survey, EEH is subject to sampling error, that is, the normal variability which comes about from the inclusion of some respondents rather than others. The ABS calculates the degree of sampling error (called standard errors) which can be used to construct confidence intervals around the estimates, as well enabling researchers to conduct tests of statistical significance between various estimates. The conventional level for such confidence intervals is 95%. This then provides a range—a lower bound and an upper bound—within which the true population estimate would lie on 95% of occasions if the sampling were repeated numerous times. For the all-industry figures, and for most of the aggregate Division G figures, the sample size is large enough that most inferences do not require careful scrutiny of the standard errors. However, when subgroups are under consideration—such as the industry Subdivisions—it becomes more important to keep sampling error in mind and to remind oneself that point estimates are actually intervals. The tendency of the ABS spreadsheets to report dollars and cents can obscure this important caveat.

With this in mind, it is worth briefly looking at the standard errors for some of the results examined in this section. Table 3.15 shows the average weekly total cash earnings for full-time employees for all industries, Division G and the industry Subdivisions examined earlier. The size of the standard errors differ considerably, from a modest $11 for all industries through to a very large $168 for non-store retailing. The magnitude of the standard errors reflect two important factors: the sample size and the amount of variability. Non-store retailing, for example, has a very small sample size,

hence the extremely large standard error. Division G overall has a large sample size and hence the more modest standard error.

The confidence intervals in Table 3.15 show that the all-industry average lies between $1,488 to $1,531, whilst the Division G average lies between $1,021 and $1,118. The difference between Division G and the all-industry estimate is clearly statistically significant.[15] On the other hand, the differences between the various in-dustry Subdivisions are not statistically significant, and the range of these estimates is clearly larger than that for Division G as a whole.

TABLE 3.15: AVERAGE WEEKLY TOTAL CASH EARNINGS: CONFIDENCE INTERVALS, AUSTRALIA 2014

Industry	*Weekly earnings*	*Standard error*	*Lower bound*	*Upper bound*
Motor vehicle etc	$1,110	$69	$975	$1,245
Fuel retailing	$1,042	$83	$880	$1,204
Food retailing	$1,090	$61	$971	$1,209
Other store-based	$1,037	$29	$980	$1,094
Non-store retailing	$1,240	$168	$911	$1,569
Division G	$1,069	$25	$1,021	$1,118
All industries	$1,509	$11	$1,488	$1,531

Source: ABS Employee Earnings and Hours (EEH), May 2014. Spreadsheets: 63060do007 201405 Table 3; 63060do015 201405 Table 1. Population: Full-time non-managerial employees paid at adult rate. Note: lower and upper bounds for 95% confidence interval.

Average weekly earnings

Another ABS survey of employers which is conducted more frequently (twice yearly for the June and December quarters) is Average Weekly Earnings (AWE). For this survey some 5,500 employers are sampled from the ABS Business Register. Unlike EEH which uses a two-stage sample design to select individual employees from the payroll, AWE collects the total gross earnings of employees and then divides by the number of employees to arrive at its averages. As the ABS explanatory notes point out, these earnings estimates 'do not relate to average award rates or to the earnings of the "average person"'. These estimates follow the ILO concept of 'Statistics of average earnings' and they are primarily aimed at estimating the level of earnings in Australia, though they are useful for tracking earnings over time. When used for time series, several caveats need to be kept in mind. Compositional change over time, such as differences in the occupational distribution or the proportion of full-timers, will influence the estimates. This is one of the main motivations behind developing the Wage Price Index (examined in the next chapter). In addition, the standard errors for period-to-period movements in AWE are greater proportionally than for the levels in one period. The AWE series is particularly useful for current comparisons, such as that conducted here between Division G and all industries.

15. As well as examining whether confidence intervals overlap, one can test for statistical significance using the standard error of the difference. The two approaches do not always produce the same answer, with the confidence interval approach tending to be more conservative. See Rory Wolfe and James Hanley 2002, 'If we're so different, why do we keep overlapping? When 1 plus 1 doesn't make 2', in: *Canadian Medical Association Journal* Vol. 161. No. 1, pp. 65–66.

Like the EEH, AWE now regards salary sacrificed amounts as part of cash earnings, rather than in-kind earnings. These changes have applied since May 2006 (EEH) and August 2007 (AWE). In the time series analysis in the next chapter, where AWE is used, the older conceptual basis is used (since the ABS has maintained this for historical comparability).

The AWE results are presented here for comparison with EEH. They differ in population since EEH is restricted to employees and AWE covers employed persons. In addition, the industry for AWE is the aggregated Division G rather than the subdivisions just examined. Despite the differences, the comparison is an illuminating one.

TABLE 3.16: AVERAGE WEEKLY TOTAL CASH EARNINGS, AUSTRALIA MAY 2010 TO NOVEMBER 2014

Date	*Division G*	*All industries*	*Ratio*
May 2010	$980	$1,352	73
Nov 2010	$981	$1,381	71
May 2011	$967	$1,411	69
Nov 2011	$1,008	$1,442	70
May 2012	$994	$1,465	68
Nov 2012	$1,036	$1,503	69
May 2013	$1,051	$1,526	69
Nov 2013	$1,054	$1,547	68
May 2014	$1,067	$1,564	68
Nov 2014	$1,094	$1,594	69

Source: ABS Average Weekly Cash Earnings, Original series. Cat. No. 6302.0 Table 17. Spreadsheet: 63020do017 20144 Table 1. Population: Persons, adult, full-time.

Table 3.16 shows the averages for the period 2010 to 2014, with the May 2014 entry being the appropriate comparison for the earlier EEH data. The closeness of this estimate ($1,067) to the EEH estimate shown in Table 3.11 of about $1,069 is impressive, while the all-industry average of $1,594 is somewhat higher than the EEH estimate of $1,509.

Because the all-industries figure is higher in AWE, the ratio for Division G is somewhat lower than suggested by EEH: at about 68%) compared to EEH (at about 70.8%). As a final comment, to be pursued in greater detail in the next chapter, is the decline in the ratio of Division G to all industries in the period since 2010. It has fallen from 73% to 69%.

Summary

This chapter has examined a number of survey datasets, both household-based and employer-based, as well as a number of different populations. While there is considerable minor variation in the results, the overall pattern is conclusive. Compared to workers in other industries, the retail workforce is amongst the lowest paid, coming close to accommodation and food services (and ignoring agriculture, forestry and fishing) which has that distinction. While the percentages vary, it appears that the earnings for retail workers are about 70% of the earnings of the all-industry average.

In 2014 the mean weekly wage of adult full-time non-managerial employees in Division G was $1,069 while the median was $950. The mean was about 71% of the

all-industry average of $1,509. Some two-thirds of these Division G employees were earning below $1,100 per week, compared with a proportion of about one third in all industries.

The hourly wage for non-managerial employees in Division G—which includes the part-time workforce—was $24.90. This was also about 71% of the all-industry average of $35.30.

4. *Changes in earnings over time*

The last chapter suggested that over the last 5 to 6 years the relative earnings of workers in the retail industry, vis-à-vis all industries, declined. This was evident in the HILDA household survey data and the AWE employer survey data. This chapter takes a closer look at these data sources, as well as other data sources, and take a longer-term perspective on wages growth by examining the period since 2001.

Average weekly earnings

For a longer-term analysis of average weekly earning using AWE it is necessary to use the former conceptual basis of the series, in which salary sacrificing is regarded as in-kind remuneration. The ABS has ensured that the series remains consistent, even after 2007 when a different conceptual basis (cash earnings) was implemented. (They did this by revising the data for the period from 1996 to 2008.)

Cash earnings was used in the last chapter and this showed a decline for Division G adult full-time workers from 73% of the all-industry average to 69% for the period from 2010 to 2014. In this chapter the time period is extended to cover the period from May 2001 to November 2014 and the earnings for this series exclude salary-sacrificing. The population for this series is full-time adult persons, a more expansive category than employees (as well as including managers).

The results are presented below in two ways. Nominal earnings—which take no account of inflation—and real earnings—which uses the CPI to take account of inflation—are both used to track the growth in earnings of Division G relative to all industries. Growth is analysed by indexing the earnings to 100 in 2001 and tracking the change in the index over time. This is shown in Figure 4.1 and the data are shown in Table 4.1. The results confirm the findings in the last chapter and show a steady divergence by Division G from the all-industry average, a trend which starts in about 2009, coincident with the Global Financial Crisis (GFC). Prior to that period, the Division G earnings tracked the all-industry average closely.

As well as providing a useful visual tool, the index numbers also allow one to read off percentage changes. In nominal dollars, full-time adults in all industries experienced an increase in earnings of about 80%; for those in Division G the increase was about 65%. In real dollars, the all-industry increase was about 26% while the Division G increase was about 15%.[16]

16. The ABS advises that the standard errors for AWE are somewhat larger for the time series data and it provides standard errors for the period after 2008. Assuming that these errors are reasonably constant over the period from 2001 to 2014 allows one to estimate lower and upper bounds for the earnings estimates for the period examined here. These suggest that the relative fall in weekly earnings among Division G workers was statistically significant.

FIGURE 4.1: GROWTH IN AVERAGE WEEKLY EARNINGS, AUSTRALIA 2001–2014

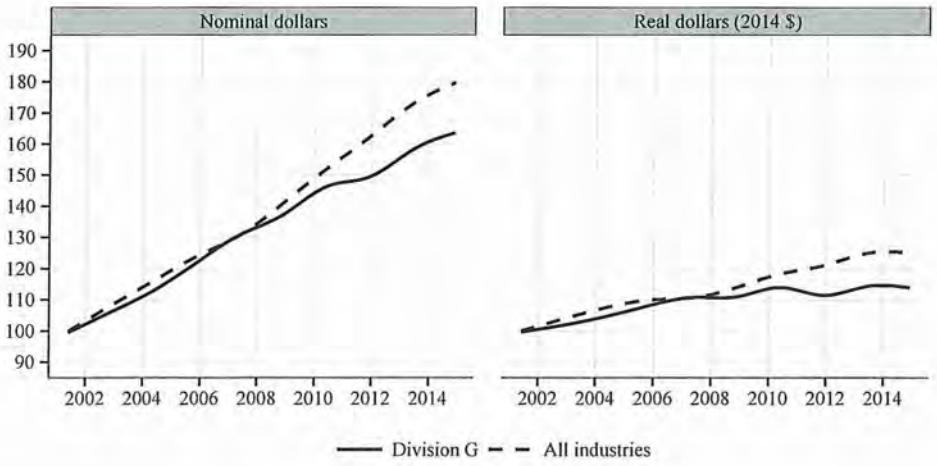


TABLE 4.1: GROWTH IN AVERAGE WEEKLY EARNINGS, AUSTRALIA 2001–2014

	Nominal dollars		*Real dollars (2014 $)*	
Year	*Division G*	*All industries*	*Division G*	*All industries*
2001-06	100.0	100.0	100.0	100.0
2001-12	101.9	102.7	100.7	101.5
2002-06	102.0	105.1	99.2	102.2
2002-12	107.4	108.0	103.1	103.7
2003-06	108.0	111.5	102.4	105.7
2003-12	112.5	114.4	105.5	107.2
2004-06	111.7	114.9	103.3	106.2
2004-12	115.5	118.8	105.6	108.6
2005-06	118.7	122.3	107.1	110.3
2005-12	122.9	124.5	109.3	110.7
2006-06	126.5	125.4	109.7	108.8
2006-12	126.1	127.8	108.5	109.9
2007-06	130.4	131.3	110.8	111.5
2007-12	135.4	134.4	113.2	112.4
2008-06	133.8	136.8	108.9	111.3
2008-12	138.1	141.4	111.3	114.0
2009-06	138.8	144.2	111.3	115.7
2009-12	144.6	149.1	114.3	117.8
2010-06	147.4	151.9	114.6	118.1
2010-12	147.6	155.2	113.5	119.3
2011-06	145.5	158.6	109.3	119.1
2011-12	151.9	162.4	113.4	121.2
2012-06	150.1	165.1	111.3	122.5
2012-12	156.5	170.3	114.3	124.4
2013-06	158.8	173.2	115.1	125.5
2013-12	159.5	175.2	113.4	124.6
2014-06	160.8	177.1	113.1	124.6
2014-12	164.7	180.2	115.1	125.9

Source: ABS Average Weekly Earnings (AWE), Total earnings. Original series. Spreadsheet: 63020010h, Data1. Population: Persons, full-time adults. Note: Real dollars adjusted using CPI. Both then indexed to 100 at 2001. Data in graph smoothed to show underlying trend.

Wage price index

Changes in earnings over time can be influenced by a number of factors which reflect changes in the work being done rather than actual changes in rates of pay. In recognition of this, the ABS has developed a wage price index (WPI) which is not affected by changes in the quality or quantity of work undertaken. The ABS wage price index thus takes account of workers taking on different tasks, doing longer hours of work, or working in different locations. In addition, changes in age or qualifications of the job occupant are also accounted for. Finally, compositional changes in the labour market—such as the occupational mix—are also taken into account. The result is a time-series which comes closest to measuring pure movements in wages over time.

As with other employer surveys, the ABS samples employers from its Business Register. It does this on a quarterly basis and constructs a sample of approximately 18,000 matched jobs. From these it constructs the WPI series. In this section the ordinary time hourly rates of pay index is used. This series excludes the effects of penalty payments, fluctuating allowances and bonuses.

The WPI results are shown in two ways. In Figure 4.2 (and in Appendix Table A5) the trend in the index is shown for the period from 2001 to 2014, broken down by Division G and all industries. In Figure 4.3 (and in Appendix Table A6) the data are shown as price movements, that is, as percentage changes in the index from the corresponding quarter of the previous year.

Looking first at the trend in the index (Figure 4.2) it is clear that over the period between 2001 and 2014 ordinary hourly rates of pay lagged behind the all-industry average. Despite some improvement in the period from 2007 to 2008, from 2009 onward the gap began to enlarge again. Over the entire period, the all-industry index had grown by just over 61% but in Division G the index had grown by under 52%.

The reason for the differing outcomes is evident in Figure 4.3: it represents the accumulating effect of lower annual wage increases. These data suggest that wages growth for Division G employees consistently lagged behind the all-industry over the period from 2001 to 2006. In 2006 they matched the average, before falling behind again in 2007. In late 2007 and during 2008 Division G workers experienced wage increases higher than the all-industry average. With the onset of the GFC, average wages growth dropped dramatically, and for Division G workers the drop was more severe. After a brief rise in wages growth in late 2010, wages growth began to decline again, and a gap between the average wages growth for Division G workers and the all-industry average persisted until late 2013. While the gap closed during late 2013, by 2014 it appeared to widen again.

In summary, looking at the period as a whole, Division G workers consistently lagged behind the all-industry average in wages growth. In only one brief period, over several quarters from late 2007 to late 2008, did their annual wage increases exceed the all-industry average in any substantial way. For most quarters and in most years, their wage increases were below the all-industry average. As a result, by 2014 the effect on the overall position of Division G workers was the considerable gap shown in Figure 4.2.

FIGURE 4.2: GROWTH IN ORDINARY HOURLY RATES OF PAY, AUSTRALIA 2001 TO 2014

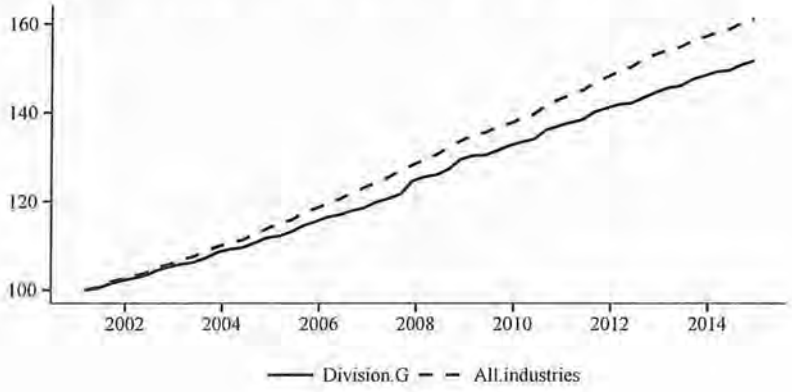
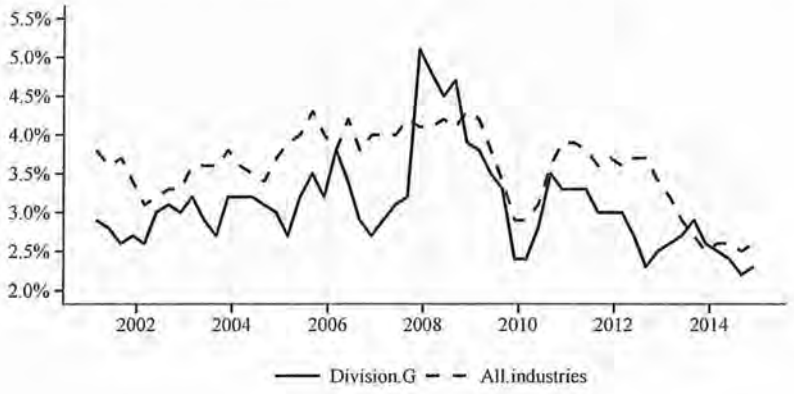


FIGURE 4.3: ANNUAL MOVEMENTS IN ORDINARY HOURLY RATES OF PAY, AUSTRALIA 2001 TO 2014



HILDA earnings data

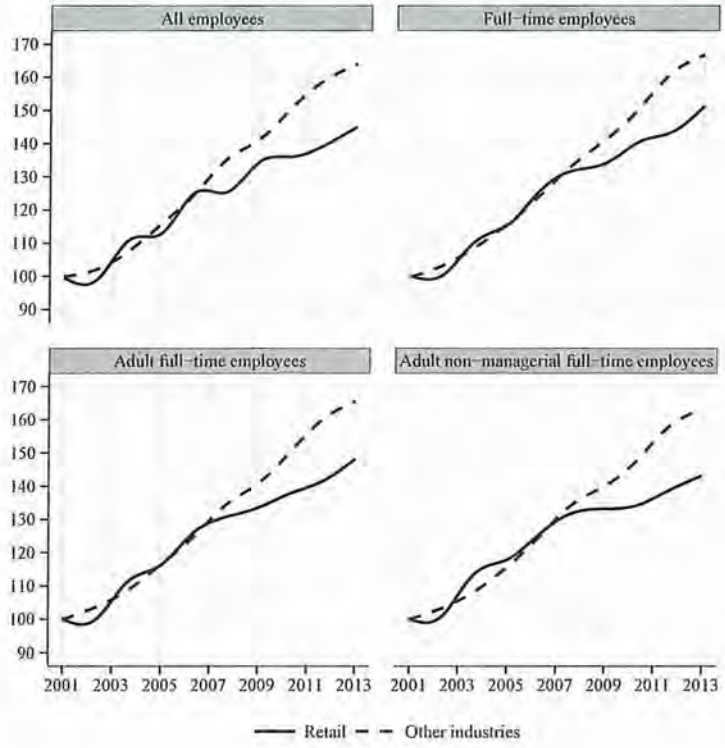
The advantage of the HILDA data for this time series analysis is the flexibility in defining populations and in identifying retail without the presence of ANZSIC Subdivisions 39 and 40. One is able to examine to what extent the definition of the industry might influence the results.[17] Figure 4.4 shows four different populations for the growth in nominal weekly earnings and Table A7 show the data behind this figure. The four populations are:

1. all employees, where confounding due to age and part-time status is present;
2. full-time employees, which removes the part-time confounding;
3. adult full-time employees, which removes both the part-time confounding and the age confounding;
4. adult non-managerial full-time employees, a population which comes closest to the ABS EEH population.

17. It is worth noting that when retail can be redefined in this way, Subdivisions 39 and 40 are included in the other industries category. In addition, when the data allow, the comparator is always "other industries" rather than "all industries".

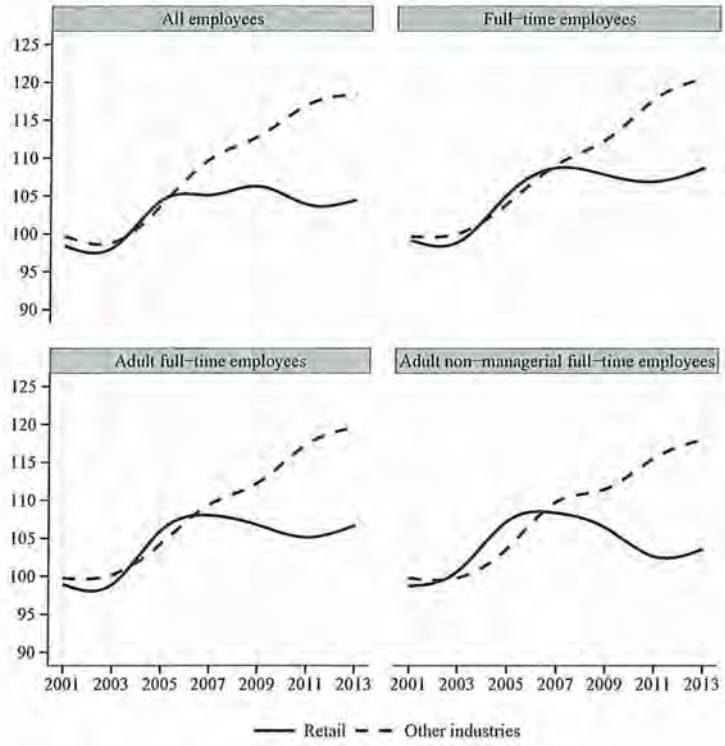
The trends shown in Figure 4.4 are consistent with the AWE data. The retail workforce tracks other industries until about 2008, after which it steadily diverges. The growing gap between retail and other industries which opened up over the period from 2008 to 2014 is largely insensitive to the population used.

FIGURE 4.4: GROWTH IN EMPLOYEE NOMINAL WEEKLY EARNINGS, AUSTRALIA 2001 TO 2013



When these data are corrected for inflation, using the CPI, the results remain essentially the same. As Table A8 in the appendix shows, the increase in real earnings between 2001 and 2013 for industries other than retail was about 17% to 20% (depending on the population chosen). For the retail workforce, the increase was from 3% to 9% (depending on the population). Using a different measure—such as the median—also confirms the overall results.

FIGURE 4.5: GROWTH IN EMPLOYEE REAL WEEKLY EARNINGS, AUSTRALIA 2001 TO 2013



HILDA also provides hourly earnings using a variable based on usual weekly earnings and usual hours. With this variable, one can assess the situation of all employees without the potential confounding caused by the presence of part-time employees. The trend data for 2001 to 2014 are shown in Figure 4.6 and Table A9 in the appendix. These data confirm the emergence of an earnings gap among the full-time retail workforce but not among the combined full-time and part-time retail workforce. For the latter, the gap began in 2009—as it appears to have for all the data—but by 2013 the gap had largely closed. This was partly the result of improved growth among the retail workforce while at the same time growth in earnings among other industries was declining. This pattern is also evident in the results for real hourly wages growth, where the decline in the growth in other industries is particularly notable. The various full-time retail populations all show similar results: a gap appearing in 2008, several years of subdued growth—or even falling earnings in real terms—and then from 2011 onward, a resumption of growth. Depending on the population, the gap in real earnings which remained in 2013 among the full-time retail workforce ranged between 5% and 7% percentage points (see Table A10 in the appendix.)

FIGURE 4.6: GROWTH IN EMPLOYEE NOMINAL HOURLY EARNINGS, AUSTRALIA 2001 TO 2013

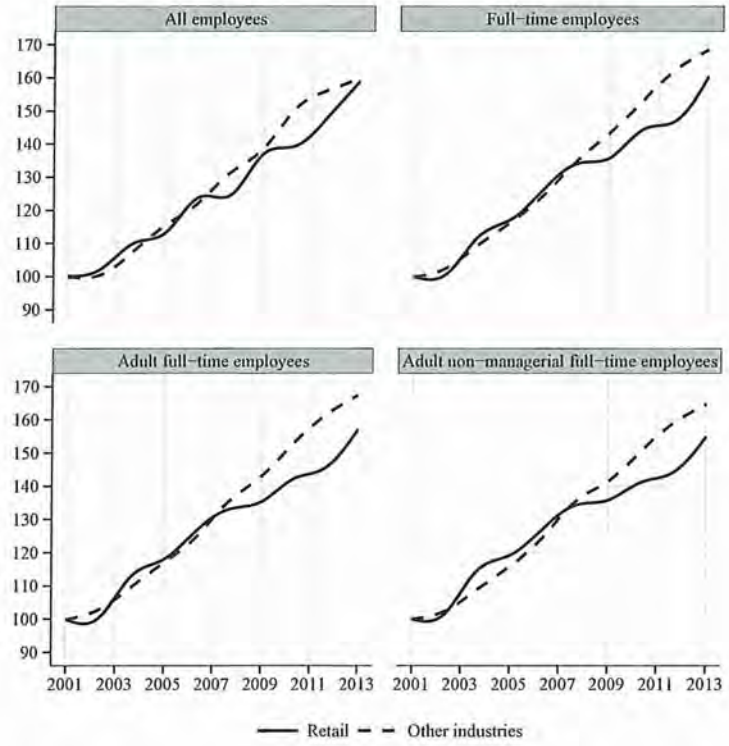
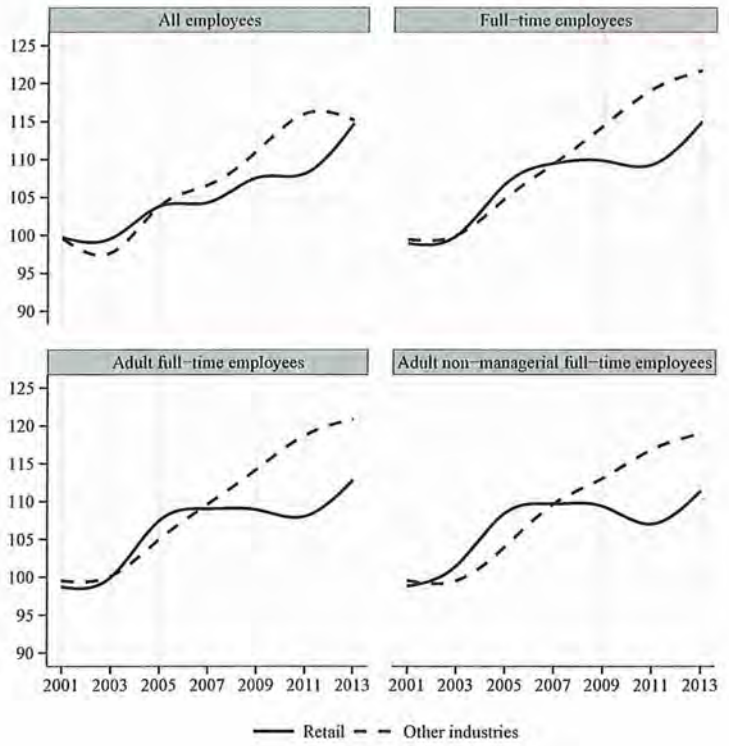


FIGURE 4.7: GROWTH IN EMPLOYEE REAL HOURLY EARNINGS, AUSTRALIA 2001 TO 2013



Summary

It seems quite conclusive that the earnings situation of retail workers vis-à-vis other workers deteriorated in the wake of the Global Financial Crisis. Both ABS data and the HILDA data show a decisive break in the trend lines for these two groups of workers, with the wages growth of retail workers falling steadily behind from 2009 onwards.

Whether that gap has closed in more recent years is less clear-cut. The ABS results suggest that the gap has not closed, and that for both nominal and real earnings, retail workers in 2014 lag considerably behind workers in other industries. On the other hand, The HILDA results are less conclusive. Using weekly earnings as the unit, the gap remains among all populations. However, using hourly earnings, the gap appears to have closed for all employees, though it remains among other populations, such as the full-time workforce.

With the HILDA results, weekly earnings is preferable to hourly earnings because the latter is based on a calculation of dividing weekly earnings by reported hours of work. Particularly for those employees who work open-ended hours in task-oriented jobs with little provision for overtime—and this is now a considerable proportion of the workforce—the hourly rate based on a simple calculation can be an under-estimate of their earnings.

The ABS earnings results are more rigorous and draw on data with much larger sample sizes than the HILDA data. Moreover, ABS earnings do not rely on self-reporting but are based on the information collected from payrolls. In the case of the WPI, many of the extraneous influences which shape earnings trends over time have been controlled for, thus providing a more accurate indication of true wage movements over time. For these reasons, it is more likely that this closing of the hourly earnings gap between retail workers and the all-industry average shown in the HILDA results is a less reliable indication of the current situation.

5. *Low paid workers in the retail industry*

This chapter uses the HILDA data to examine the extent to which the retail workforce is low paid. Where the earlier chapters looked at a range of statistical measures and provided estimates of dollar earnings and growth in earnings, this chapter looks at the proportions of a dichotomous category: low paid or not low paid. It further examines these proportions over time, from 2001 to 2013. The subtlety in this analysis lies in using a number of criteria to define low paid. These are all conventional definitions and changing from one to another widens or narrows the net which captures certain individuals in the low paid category. The populations for this analysis also change, and this also has an impact on the conclusions one might draw. Both hourly rates of pay and usual weekly earnings are used in this analysis.

TABLE 5.1: NATIONAL MINIMUM WAGE (NMW), AUSTRALIA 2001 TO 2013

Year	*Hourly rate*	*Weekly rate*
2001	$10.88	$413.44
2002	$11.35	$431.30
2003	$11.80	$448.40
2004	$12.30	$467.40
2005	$12.75	$484.50
2006	$13.47	$511.86
2007	$13.74	$522.12
2008	$14.31	$543.78
2009	$14.31	$543.78
2010	$15.00	$570.00
2011	$15.51	$589.38
2012	$15.96	$606.48
2013	$16.37	$622.06

Source: Fair Work Commission. The National Minimum Wage (NMW) was formerly known as the Federal Minimum Wage (FMW).

The first definition of low paid is based on using the National Minimum Wage (NMW) as the criterion. The NMW was previously known as the Federal Minimum Wage but the current terminology is used to refer to its past levels. The dollar values for the NMW from 2001 to 2013 are shown in Table 5.1. In this chapter, employees at or below the NMW are referred to as 'NMW low paid workers'. The second definition is one commonly found in the literature on low pay and the literature on the working poor: two-thirds of median earnings. Those employees earning at or below this level are referred to in this chapter as 'median low paid workers'. Finally, the third definition is the 20th percentile, also termed the bottom quintile, which is another common measure of low pay. Those employees earnings at below the bottom quintile are referred to as 'quintile low paid workers'.

It needs to be kept in mind that within the context of industrial relations the National Minimum Wage does not just provide a single minimum wage, but sets the rates for a set of pay scales. Thus the criterion for low pay here is not equivalent to the potential reach of the NMW. Far more workers than shown in the following tables are effected by the NMW. What the NMW provides here is a simple cut-point for the definition of low paid: that is, those at or below the lowest dollar quantum attached to the NMW (shown in Table 5.1).

In terms of populations, the analysis moves through a number of groups:

1. all employees, which uses hourly rates;
2. all employees, which takes account of the casual loading by discounting hourly rates;
3. adult employees, which also uses hourly rates;
4. full-time employees, which uses weekly earnings;
5. adult full-time employees, which also uses weekly earnings; and
6. adult non-managerial full-time employees, which also uses weekly earnings.

The last population comes closest to the main EEH population examined in earlier chapters. It needs to be kept in mind, however, that where the ABS samples some 55,000 employees for its estimates, the HILDA survey is far more modest: just over 9,000 in 2013. Each time this population is restricted, the sample size reduces, such that by the time one arrives at population (6), the sample size had reduced to about 2,500. Consequently, one needs to be cautious in interpreting small differences, or small changes over time, as being significant. Large differences, and consistent patterns in the results, are what makes the HILDA results most informative. To provide an indication of the magnitude of this issue, Table 5.2 in the next section provides point estimates, as well as lower bound and upper bound estimates for the proportion of low paid employees in each industry division.

Where the early chapter encountered complexity because of the range of datasets, this chapter draws only on the HILDA data because one requires unit record data in order to carry out all the calculations required. The complexity in this chapter comes from the different criteria for being low paid and the variety of populations. As will become apparent, the results are quite sensitive to which populations are used, so this diverse approach is necessary to arrive at robust results.

Conceptually, the criteria used imply different notions of 'poverty'. As a fixed quantum, NMW is an absolute, and is subject to arbitrary change over time, in the sense that it is determined within an institutional framework. By contrast, both the median and quintile measures are relative and both change automatically as the overall distribution of earnings changes. For example, if the median rises, because earnings in general rise, then the cut-point for being low paid also rises.[18] One of the implications of this is that the NMW definition fits within a framework of absolute poverty—related to the needs of households to survive financially—whereas the other criteria

18. Both the median and quintile measures are based on the population being examined. One could attempt to set a uniform median or quantile measure based on a single population, and then use that for all populations, but this would be open to a certain degree of arbitrariness in choosing the benchmark population. For the concept to be a relative one, the population distribution under scrutiny should also provide the benchmarks. By contrast, the NMW criterion comes closer to providing a distribution-neutral, uniform benchmark and is thus suited to the absolute concept.

fit within the framework of relative poverty with an emphasis on social inclusion and concerns about growing wage inequality in Australia. The needs of low paid workers within the context of household finances are examined in detail in the next chapter. Discussion of wage inequality in Australia is outside the scope of this report but it is worth noting that Australia, like most Western countries, has seen considerable growth in wage inequality since the 1980s.[19]

5.1 Is the retail workforce lowpaid?

We saw in earlier chapters that there were a cluster of industries where wages were low, in particular : agriculture, forestry and fishing; accommodation and food services and retail. As Table 5.2 shows, these are also the industries which have largest proportion of low paid workers using the various definitions outlined in the last section. In the case of retail, about 23% of employees are low paid using the NMW definition. This rises to 28% using the two-thirds median definition and reaches 36% using the bottom quintile definition. The equivalent proportions across all industries are 13%, 16% and 20% respectively.

For comparison it is worth observing that the main contender for the lowest paying industry—accommodation and food services—has proportions of 45%, 51% and 59%. At the other end of the scale, one of the highest paying industries—electricity, gas, water and waste—has proportions of 3%, 7% and 9%.[20]

Table 5.2 also takes account of sampling error and provides upper and lower bounds for a 95% confidence interval. In the case of retail this confidence interval is approximately plus and minus 3.8 percentage points on either side of the estimate (NMW low paid). Across all industries, the confidence interval is plus and minus 1 percentage point on either side of the estimate (NMW low paid). This table contains the most 'optimistic' scenario, in the sense that it uses the largest population: all employees. In the next section, where the population is increasingly restricted these confidence intervals successively enlarge.[21]

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19. An extensive literature examining wage inequality emerged during the 1990s, particularly in the United States and the United Kingdom (see, for example, Richard Freeman 1996, 'Labour Market Institutions and Earnings Inequality', in: *New England Economic Review* Vol. May/June, pp. 157–168, John DiNardo, Nicole M. Fortin and Thomas Lemieux 1996, 'Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach', in: *Econometrica* Vol. 64. No. 5, pp. 1001–1044 and James K. Galbraith 1998, *Created Unequal: The Crisis in American Pay*, Chicago: University of Chicago Press). The onset of the Global Financial Crisis, and subsequent economic stagnation in Europe, spurred another burst of research (James K. Galbraith 2012, *Inequality and Instability: A Study of the World Economy Just Before the Great Crisis*, New York: Oxford University Press). By 2014, a lengthy economic history of inequality had become an international best-seller (Thomas Piketty 2014, *Capital in the Twenty-First Century*, trans. by Arthur Goldhammer, Cambridge, Mass: The Belknap Press of Harvard University Press). In Australia, recent studies of wage inequality include Ian Watson Forthcoming, 'Wage inequality and neoliberalism: the Australian experience', in: *Journal of Industrial Relations* and Peter Saunders 2005, 'Reviewing Recent Trends in Wage Income Inequality in Australia', in: *Labour Market Deregulation: Rewriting the Rules*, ed. by Joe Isaac and Russell D. Lansbury, Leichhardt: The Federation Press.

20. I omit from this discussion the two industry divisions Agriculture, forestry, fishing and Mining because they are so atypical.

21. The standard errors calculated for survey data take account of sample size, variability in the data, and the sample design itself. The confidence intervals in this report have been calculated using the `survey` package in R (Thomas Lumley 2014, *survey: analysis of complex survey samples*, R package version 3.30 and Thomas Lumley 2004, 'Analysis of complex survey samples', in: *Journal of Statistical*

TABLE 5.2: INDUSTRY BY LOW PAID EMPLOYEES, AUSTRALIA 2013 (%)

	At or below NMW			*Two-thirds median*			*Bottom quintile*		
Industry	*Point*	*LB*	*UB*	*Point*	*LB*	*UB*	*Point*	*LB*	*UB*
Agric, forestry, fishing	34.9	22.3	47.4	39.7	27.1	52.4	45.0	32.4	57.6
Mining	2.1	0.1	4.0	2.7	0.5	4.9	2.7	0.5	4.9
Manufacturing	11.5	8.2	14.8	13.7	10.3	17.2	18.3	14.6	22.1
Elect, gas, water, waste	3.4	0.1	6.7	6.7	1.9	11.5	8.7	3.3	14.1
Construction	14.4	9.5	19.3	15.2	10.3	20.2	18.1	12.9	23.4
Wholesale trade	4.6	1.9	7.3	8.1	4.2	12.0	12.4	7.7	17.2
RETAIL	22.6	18.9	26.4	28.1	23.9	32.3	36.5	31.4	41.6
OTHER DIVISION G	21.8	13.1	30.6	25.1	16.3	34.0	32.8	23.9	41.8
Accomm and food services	45.2	39.7	50.6	51.4	45.1	57.8	59.1	52.5	65.6
Trans, postal, warehousing	8.3	5.1	11.4	11.9	6.2	17.5	17.3	11.1	23.6
Information media, telecomm	2.5	0.4	4.5	3.4	0.9	5.9	6.6	0.9	12.2
Finance and insurance	2.3	0.1	4.4	3.0	0.7	5.2	4.2	1.7	6.6
Rental, hiring, real estate	8.1	3.2	13.1	9.7	4.4	15.0	15.1	8.1	22.0
Profess, scientific tech	7.0	4.1	9.9	8.1	5.1	11.2	9.9	6.6	13.2
Admin and support services	14.8	8.8	20.9	22.7	15.5	29.8	27.3	19.4	35.3
Public admin and safety	3.1	1.7	4.4	4.2	2.6	5.8	5.1	3.4	6.8
Education and training	6.9	5.1	8.7	8.4	6.4	10.4	10.8	8.5	13.0
Health and social assistance	8.8	6.6	11.0	11.7	9.3	14.1	14.7	12.1	17.4
Arts and recreation services	20.4	13.3	27.5	25.1	17.5	32.8	30.7	22.1	39.3
Other services	24.5	17.7	31.2	28.0	21.2	34.8	32.0	25.1	38.9
Total	13.2	12.2	14.2	16.1	15.0	17.2	20.0	18.7	21.3

Abbreviations: Point = point estimate; LB = lower bound for 95% confidence interval; UB = upper bound for 95% confidence interval. Source: unpublished HILDA data. Populations: employees. Note: definitions of low paid as shown and based on hourly rates of pay.

5.2 *Different populations*

This section provides an overview of the low paid workforce in retail for 2013 and examines a number of populations. In the tables which follow population estimates of counts and column percentages are presented. This allows one to assess both the respective sizes of these populations and the proportion who are low paid. Table 5.3, for example, shows that about 1.3 million employees were at or below the NMW in 2013, a figure which represented about 13% of the total employee workforce. Using the two-thirds median definition, the number of low paid employees rose to over 1.5 million, or about 16%. Finally, the bottom quintile definition put the number of low paid at 1.9 million (and 20% of the total, which is axiomatic using the bottom quintile). In general terms, the relative concept of low pay—based on medians and quintiles—implies higher proportions of low paid workers than does the absolute concept—based on the NMW definition. This pattern is a systematic one, and is found throughout this chapter.

Software Vol. 9. No. 1, pp. 1–19). This calculation takes account of the survey design, which involved both stratification and clustering (see Clinton Hayes 2008, *HILDA Standard Errors: A Users Guide*, HILDA Project Technical Paper Series 2/08, University of Melbourne: Melbourne Institute of Applied Economic and Social Research). While sample size is crucial to the size of standard errors, the effects are not linear but become more pronounced as the sample falls below about 1,500. Thus a reduction in the HILDA sample from about 9,392 to about 2,404 for the all-industry figures in 2013 has minimal effect on the standard errors. On the other hand, the reduction in sample size for retail, from 868 to 218, has a much more severe impact.

Assessing the situation for the retail workforce is a comparative exercise. As with this example, one can examine the proportion who are low paid as one changes the definition of low pay. One can also compare the retail workforce with the average of other industries. Table 5.3 shows that the numbers of low paid retail employees range from around 200 thousand through to 330 thousand, depending on the criterion. Similarly, the proportion who were low paid varies from 23% (NMW low paid) to 28% (median low paid) to 36% (quintile low paid). Comparing these retail figures with those in the last paragraph for other industries shows that the proportion of retail employees who were low paid was about 1.8 times greater than the averages in all other industries.

TABLE 5.3: LOW PAID EMPLOYEES, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	204	1,081	1,285	23	12	13
Above NMW	698	7,688	8,386	77	88	87
Total	903	8,769	9,671	100	100	100
Two-thirds median	254	1,311	1,564	28	15	16
Above two-thirds median	649	7,458	8,107	72	85	84
Total	903	8,769	9,671	100	100	100
Bottom quintile	329	1,616	1,945	36	18	20
Above bottom quintile	573	7,153	7,726	64	82	80
Total	903	8,769	9,671	100	100	100

Source: unpublished HILDA data. Populations: employees. Note: definitions of low paid as shown and based on hourly rates of pay.

Taking account of casual loadings (as shown in Table 5.4) has a small influence on the results, an effect that is more evident with the NMW criterion than with the quintile criterion. The overall pattern in the results does not alter with this change in population.

TABLE 5.4: LOW PAID EMPLOYEES (ADJUSTED), AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	250	1,296	1,546	28	15	16
Above NMW	653	7,455	8,107	72	85	84
Total	903	8,750	9,653	100	100	100
Two-thirds median	306	1,519	1,825	34	17	19
Above two-thirds median	597	7,231	7,827	66	83	81
Total	903	8,750	9,653	100	100	100
Bottom quintile	347	1,603	1,950	38	18	20
Above bottom quintile	556	7,147	7,703	62	82	80
Total	903	8,750	9,653	100	100	100

Source: unpublished HILDA data. Populations: employees (adjusted). Note: definitions of low paid as shown and based on hourly rates of pay adjusted for casual loading.

Restricting the population to adults (Table 5.5) has a large effect on the number and proportion of NMW low paid employees but has little effect on the quintile low paid. The number of NMW low paid employees in retail drops to under just under 65 thousand, or about 10% of the adult employee workforce. The quintile low paid

remains high, at 235 thousand employees or 38% of the adult employee workforce. The median low paid is just over 130,000, or about 21% of that workforce. In comparison with all other industries, the retail proportions range from about 1.3 to 2 times higher.

TABLE 5.5: LOW PAID ADULT EMPLOYEES, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	63	615	678	10	8	8
Above NMW	559	7,388	7,947	90	92	92
Total	622	8,003	8,625	100	100	100
Two-thirds median	133	1,016	1,149	21	13	13
Above two-thirds median	489	6,987	7,476	79	87	87
Total	622	8,003	8,625	100	100	100
Bottom quintile	235	1,502	1,737	38	19	20
Above bottom quintile	386	6,502	6,888	62	81	80
Total	622	8,003	8,625	100	100	100

Source: unpublished HILDA data. Populations: adult employees. Note: definitions of low paid as shown and based on hourly rates of pay.

The next group of populations make use of usual weekly earnings rather than hourly wage rates. This restricts all populations to full-time employees (to avoid the confounding which the inclusion of part-time employees would cause). The progression here is from all full-time employees, to adult full-time employees and finally to adult non-managerial full-time employees.

In the case of all full-time employees (Table 5.6), the number of retail employees who are NMW low paid is about 45 thousand rising to just over 110 thousand (median low paid) and 140 thousand (quintile low paid). In percentage terms, these represent 15%, 36% and 44% respectively of the total full-time retail employee workforce. In comparison to the proportion in all other industries, the retail figures are between 2.1 and 2.3 times greater.

TABLE 5.6: LOW PAID FULL-TIME EMPLOYEES, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	46	377	423	15	6	7
Above NMW	271	5,792	6,063	85	94	93
Total	317	6,168	6,486	100	100	100
Two-thirds median	113	1,050	1,164	36	17	18
Above two-thirds median	204	5,118	5,322	64	83	82
Total	317	6,168	6,486	100	100	100
Bottom quintile	139	1,177	1,316	44	19	20
Above bottom quintile	178	4,992	5,170	56	81	80
Total	317	6,168	6,486	100	100	100

Source: unpublished HILDA data. Populations: full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

The effect of restricting the full-time workforce to adults (Table 5.7) is minor, mainly because a large proportion of the full-time workforce in retail are adults. Similarly, excluding managers from the population (Table 5.8) has little substantive effect

on the results earlier, although it appears to increase the proportion of low paid workers across all criteria. It is worth noting that Table 5.8 suggests about half of all adult non-managerial full-time employees are low paid according to the bottom quintile definition. This figure is nearly 2.5 times higher than the equivalent figure for all other industries.

TABLE 5.7: LOW PAID ADULT FULL-TIME EMPLOYEES, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	37	256	292	12	4	5
Above NMW	259	5,677	5,936	88	96	95
Total	295	5,933	6,228	100	100	100
Two-thirds median	114	946	1,060	39	16	17
Above two-thirds median	181	4,987	5,168	61	84	83
Total	295	5,933	6,228	100	100	100
Bottom quintile	136	1,119	1,255	46	19	20
Above bottom quintile	159	4,814	4,973	54	81	80
Total	295	5,933	6,228	100	100	100

Source: unpublished HILDA data. Populations: adult full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

TABLE 5.8: LOW PAID ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2013

	Counts (thousands)			*Column percentages*		
Definition of low pay	*Retail*	*Other industries*	*Total*	*Retail*	*Other industries*	*Total*
At or below NMW	33	248	280	15	5	5
Above NMW	189	4,830	5,019	85	95	95
Total	221	5,078	5,299	100	100	100
Two-thirds median	78	732	810	35	14	15
Above two-thirds median	143	4,346	4,489	65	86	85
Total	221	5,078	5,299	100	100	100
Bottom quintile	111	1,023	1,134	50	20	21
Above bottom quintile	110	4,055	4,165	50	80	79
Total	221	5,078	5,299	100	100	100

Source: unpublished HILDA data. Populations: adult non-managerial full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

Summary

To the question, 'Is the retail workforce low paid?' the answer is an unequivocal yes. Along with hospitality and food services, retail has the largest proportion of low paid workers in Australia. The extent to which the retail workforce is low paid varies, depending on the definition of low pay and the population under examination. The most optimistic figure is a proportion of 10%, based on the NMW definition and looking at all adult employees. The most pessimistic figure is 50%, based on the bottom quintile and looking at adult non-managerial full-time employees. The full-time workforce in retail using the HILDA data is relatively small, so looking at all adult employees, a more robust estimate for the pessimistic figure is probably about 20% for the two-thirds median definition and somewhere in the mid 30% range for the bottom quintile defin-

ition. In terms of comparison with other industries, these proportions span a range from 1.3 to 2.5. Overall, it seems reasonable to conclude that retail employees are about twice as likely to be in the low paid category as employees in other industries.

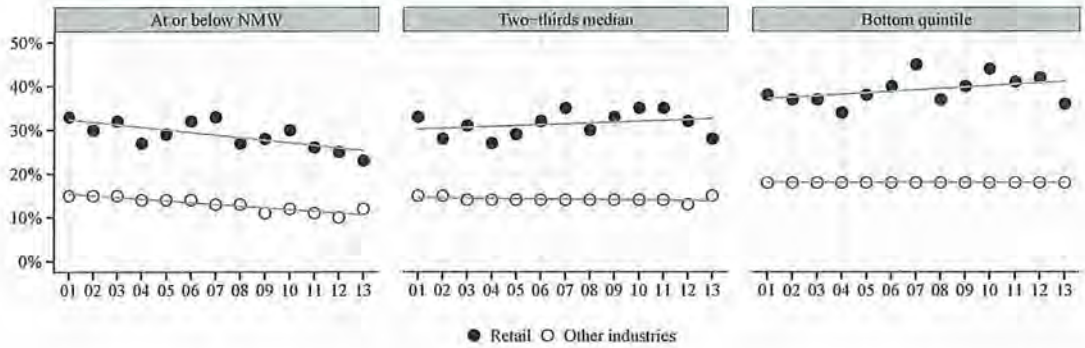
5.3 Changes over time

In this section the HILDA results examined in the last section are examined over the period from 2001 to 2013. The counts are omitted and the focus is on the proportion who are low paid and the comparison between retail and all other industries. Dot plots with the year on the x-axis and the percentage of low paid on the y-axis are shown (tables with the same data are to be found in the appendix). Dot plots are particularly useful for discerning overall patterns. It is important to keep in mind that small differences are not statistically significant and that broad trends over time are more likely to be reliable than a pattern which fluctuates. For this reason, linear regression lines for the period 2001 to 2013 are overlaid on the dots, which assists with discerning the underlying trend.

The focus in this section is on whether the difference between the retail workforce and all other industries has changed over time. In other words, have the long-term gaps in the proportion who are low paid which were identified in the last section been narrowing or widening?

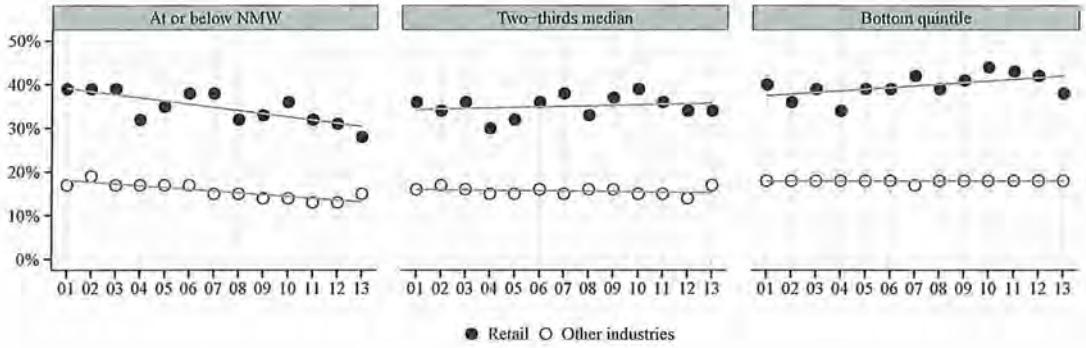
Figure 5.1 show results for all employees using their hourly rates of pay. This thus includes both part-time employees and juniors. Since 2001 the proportion of the retail population who were NMW low paid declined. For the median low paid the overall trend was almost stable, though a downward trend was evident from about 2010 onward. For the quintile low paid the overall trend was upward, though a decline was also evident from about 2010. The long-term gap between retail and all other industries appears to have narrowed slightly among the NMW low paid but to have widened among the quintile low paid.

FIGURE 5.1: PERCENTAGE OF LOW PAID EMPLOYEES, AUSTRALIA 2001 TO 2013



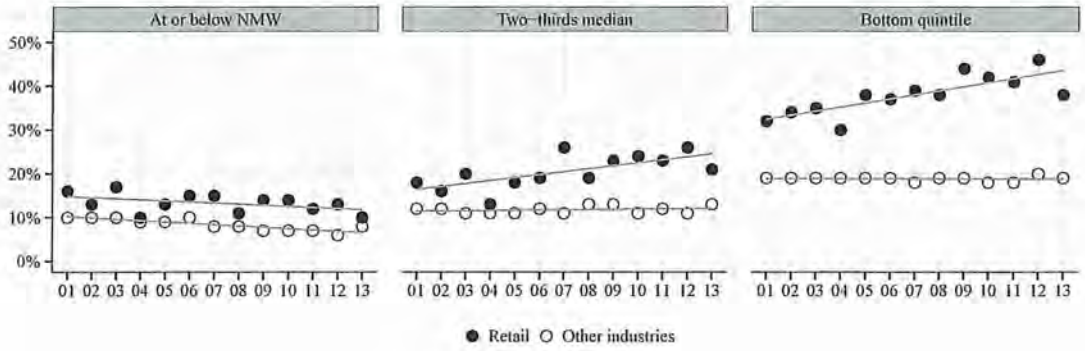
The effect of adjusting hourly rates of pay to take account of the casual loading is shown in Figure 5.2. While among the quintile low paid workforce this change does not make much difference—increasing the proportion by about 2 percentage points—its effect on the other two populations is more pronounced—as much as 5 to 6 percentage points (see Table A12 in the appendix for details). In terms of the long-term gap between retail and other industries, the patterns are essentially the same as for all employees.

FIGURE 5.2: PERCENTAGE OF LOW PAID EMPLOYEES (ADJUSTED), AUSTRALIA 2001 TO 2013



As noted earlier, restricting the population to adults has a dramatic effect. It substantially reduces the proportion of low paid workers among the NMW low paid and the median low paid (Figure 5.3). In the case of the NMW low paid, the gap between retail and other industries had almost closed by 2013. By contrast, among the median low paid and the quintile low paid the gap had opened up, particularly for the latter.

FIGURE 5.3: PERCENTAGE OF LOW PAID ADULT EMPLOYEES, AUSTRALIA 2001 TO 2013



Figures 5.4 to 5.6 show the patterns for the full-time workforce, using usual weekly earnings. Among all full-time employees the long-term gap has narrowed between retail and other industries for the NMW low paid, but not for the quintile low paid where the gap widened steadily over time. For the median low pay, the gap appeared to widen slightly (Figure 5.4). The narrowing in the long-term gap for the NMW low paid may be reversing in more recent years, with a divergence opening up after 2012.

There is little difference between these trends and those shown for adult full-time employees (Figure 5.5) and for the adult full-time non-managerial workforce (Figure 5.6).

FIGURE 5.4: PERCENTAGE OF LOW PAID FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013

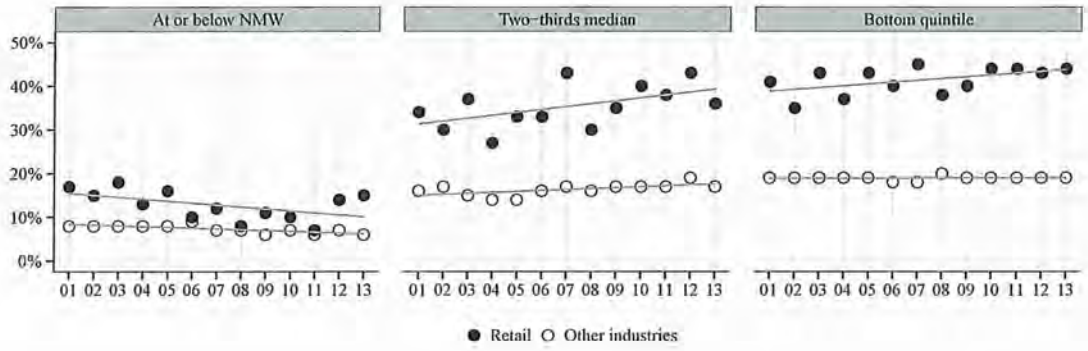


FIGURE 5.5: PERCENTAGE OF LOW PAID ADULT FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013

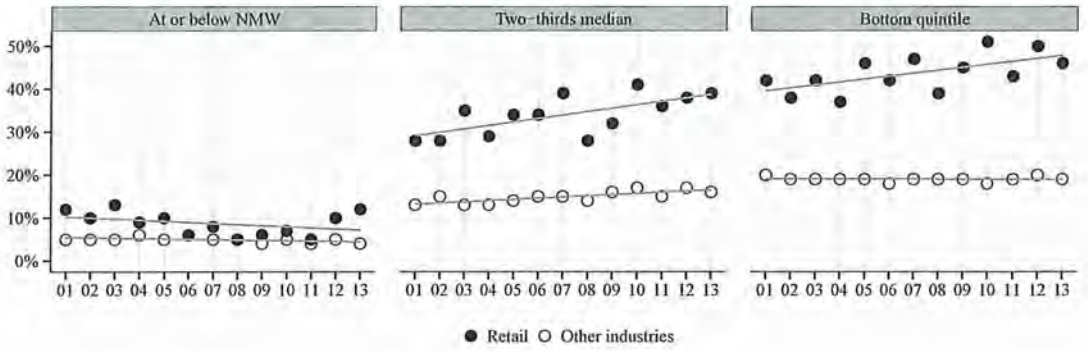
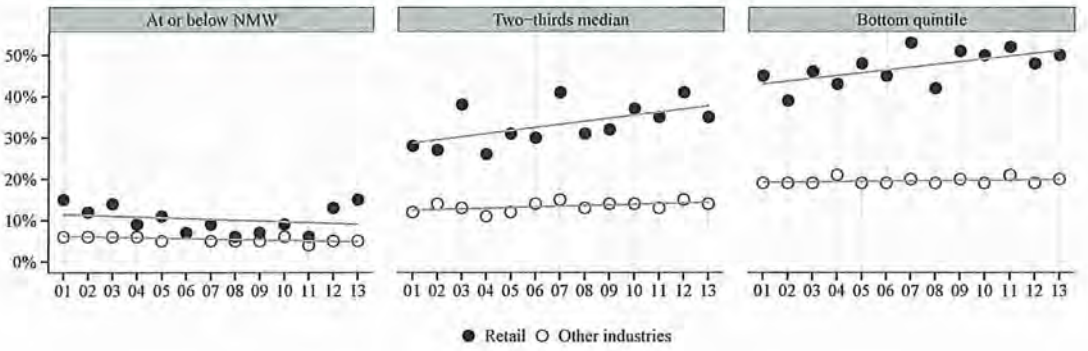


FIGURE 5.6: PERCENTAGE OF LOW PAID ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013



Summary

As the last section showed, the overall pattern in the results is quite conclusive. What is less certain are the more precise figures to attach to these results. In this section, the overall patterns are again conclusive, though there is some doubt about whether the last few years reflect a change in the overall trend.

Using the NMW definition, the gap between retail employees and those in other industries has narrowed, though there does appear to be something of a reversal in this trend for some populations. Using the two-thirds median definition the gap has either stabilised, or widened over time, depending on the population. Finally, using the quintile definition the gap has steadily widened for all populations.

The reason for these differences is not hard to discern. The NMW definition is an absolute criteria while the other two are relative. Thus as the level of the National Minimum Wage in Australia falls in relation to median earnings—a phenomenon observed by many in recent years—so this cut-point catches fewer workers in its net.[22] Ultimately, the issue of which definition, or definitions, should be employed to assess the extent of low pay in Australia becomes a matter of judgement. Is a relative concept—with its focus on social inclusion and inequality—or an absolute concept—with its focus on financial hardship—the more appropriate position to adopt?

The issue of inequality is not pursued further in this report but the issue of financial hardship is raised in the next chapter.

22. See the discussion concerning the falling value of the National Minimum Wage in ACTU 2014, *Inquiry into Workplace Relations Framework*, ACTU Submission to the Productivity Commission, Melbourne: Australian Council of Trade Unions, pp. 118–199.

6. *Household situation of the retail workforce*

In this chapter the household situation of the national retail workforce is examined using the HILDA survey which is ideally suited to such a task. Collecting large amounts of household-level information is one of the great strengths of the HILDA survey.

This chapter does not consider issues of income inequality. In the context of households, this is a complex area, as it involves issues of equivalised household income, a calculation which takes account of the composition of households and transforms the income estimates accordingly. Rather, the task is a more modest one and addresses three issues:

1. what is the household income situation of adult retail employees?
2. what are the expenditure patterns of the households where adult retail employees live?
3. do the households where adult retail workers live face financial hardship?

Each of these questions is answered in the context of a comparison with households without retail workers. 'Retail households' in this chapter are defined as those households where at least one adult retail industry employee lives. Those households where no adult retail industry employees live are designated 'other-industry households' or simply, 'other households'. Note that for both categories, only *adult employees* are used to define the households, though other persons will be living in these households with them.

It needs to be kept in mind that these other-industry households will be quite heterogeneous, and contain low paid workers from other industries (such as accommodation and food services). Furthermore, some households will be composed of employees and self-employed, and the latter are known to under-report the level of their income. For these various reasons, the real differences between retail households and average 'well off' households is likely to be much greater than is apparent in this chapter. It also needs to be kept in mind that the population for this chapter are only households with at least one adult employee. Households where all the members are self-employed, or unemployed or outside the labour market (for example, retired) are excluded.

Even though equivalised incomes are not used, it is important to take the composition of the households into account. If retail households are quite different to other households, then this could influence the comparisons. Across several key variables—household type, number of dependent children and housing profile—these two categories of household are almost identical. The sharpest difference emerges not at the household level, but in the demographic characteristics of the individual whose answers represented the household. This matters more for the self-response questionnaire than for the main survey's income and expenditure questions, where the HILDA team reconciled answers from different household members.

In this chapter the decision rule used to select the individual respondent for each household (where there were multiple household members) was the oldest, female employee in the household. This relies on the assumption that this person would have a better grasp of the expenditure patterns in the household. As a result of this decision rule, the demographic profile of these respondents is predominantly female (75% for retail households, 66% for other-industry households). The average age is also slightly different between the two categories of household, with the respondents in retail households somewhat younger (39 to 41). These differences are minor, and the strong similarity between the household characteristics of each category makes comparing these households a reasonable strategy.

6.1 Household income

The gross income of a household may be composed of many elements and for most households with an employed person, the wage and salary component is by far the largest. Government transfers can add to this income, as can other sources of market income (rents, investments etc). Table 6.1 presents a simplified view of this situation: the wage and salary income component is shown, along with government transfers (such as family payments). The other sources of income are not shown. In addition, gross income and disposable income (gross minus taxes) are also shown.

Three different measures are shown: the mean, the trimmed mean (which removes 5% of the extremes of the distribution) and the median. The means and medians are shown for comparative purposes but are not discussed. The preference in both this section and the next is to discuss trimmed means, since these avoid extreme outliers while still capturing the central tendency of the distribution.

TABLE 6.1: SOURCES OF ANNUAL HOUSEHOLD INCOME, AUSTRALIA 2013

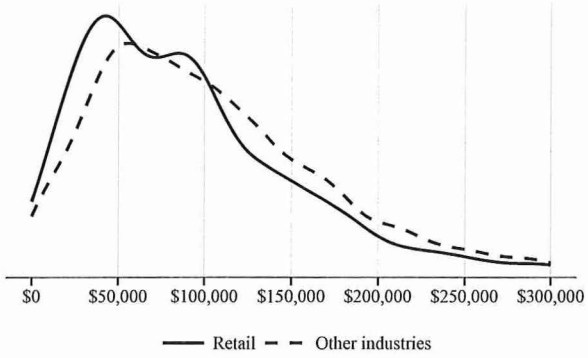
Wage and salary income	*Mean*	*Trimmed mean*	*Median*
Retail ($)	92,411	86,600	85,000
Other industries ($)	111,056	102,671	96,247
Retail as percentage	83	84	88
Govt transfers			
Retail ($)	7,591	6,004	1,312
Other industries ($)	6,135	4,331	0
Retail as percentage	124	139	
Gross regular income			
Retail ($)	110,404	101,524	98,000
Other industries ($)	128,201	117,378	111,000
Retail as percentage	86	86	88
Disposable regular income			
Retail ($)	92,975	87,548	84,252
Other industries ($)	102,957	96,239	92,210
Retail as percentage	90	91	91

Source: unpublished HILDA data. Population: Households with at least one adult employee present. Note: Retail defined as households with at least one retail employee. Regular income excludes irregular income, such as one-off payments. Gross income excludes foreign pensions. Disposable incomes is gross income minus taxes paid. The trimmed mean removes 0.05 of the distribution. Sample sizes: retail = 578; other industries = 5,271.

Table 6.1 shows that the wage and salary component of retail households is about $87,000, which is is 84% of that of other households ($103,000). On the other hand, government transfers to retail households are greater at $6,000 compared with $4,400 for other households (139%). The gross income of retail households is about $102,000, or 86% of other households (at $117,000). Finally, the disposable household income—the income remaining after tax is subtracted from gross income—sees the retail household average fall to about $88,000, which is now 91% of the other-industry households, who have seen their gross income fall by a proportionately greater amount. In summary, on average retail households earn less wage and salary income than other households, receive more by way of government transfers and pay less in taxation. These various transfers leave retail households with average disposable incomes similar to what their average wage and salary income was.

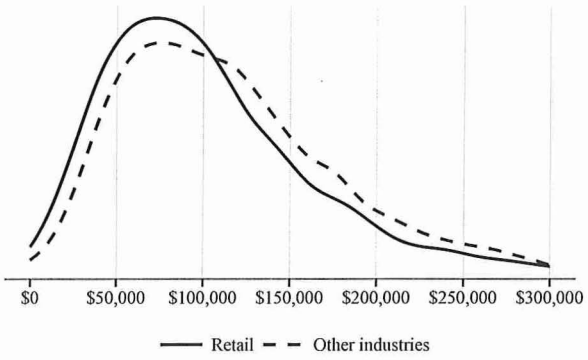
These summary measures are informative, but it can also be useful to consider the full distribution of two of these income types. Figures 6.1 and 6.2 show density graphs for the household wage and salary income, for the gross income and for the disposable income. The first shows that in the region below $50,000 per annum there is a large 'bulge' of retail households. In the region between about $60,000 and $100,000 there is a reasonable overlap between the two types of household. Then from about $100,000 onward, other households 'bulge' outwards. As mentioned earlier (page 16), bulges in density plots indicate important differences in the distribution of a variable. In summary, for wage and salary income, retail households are concentrated in the lower parts of the distribution and are 'under-represented' in the top parts of the distribution.

FIGURE 6.1: DISTRIBUTION OF ANNUAL HOUSEHOLD WAGE & SALARY INCOME, AUSTRALIA 2013



While the overall patterns in the distribution for gross income (Figure 6.2) is similar to those for wages and salaries, an important difference is evident. The top of the distribution has not changed, but the very bottom has—fewer retail households are concentrated here—and the middle has also changed—more retail households are found here. This suggests that other sources of income, primarily government transfers for low income households, have lifted the gross household income situation of retail workers.

FIGURE 6.2: DISTRIBUTION OF ANNUAL HOUSEHOLD GROSS REGULAR INCOME, AUSTRALIA 2013



When it comes to the distribution of household disposable income (Figure 6.3) the differences in terms of reduced inequality are evident—the distributions for both categories of household are more peaked—largely because the income taxation system is a progressive one. The differences between the two categories of household are more subtle but the gap between the two has narrowed in the income range between $40,000 and $60,000.

FIGURE 6.3: DISTRIBUTION OF ANNUAL HOUSEHOLD DISPOSABLE REGULAR INCOME, AUSTRALIA 2013

6.2 Household expenditure

In this section the annual household expenditure is examined with a two-fold division: items that are non-discretionary and items that are discretionary. The former are where households have few choices in reducing their expenditure; for the latter they have more flexibility. Again the trimmed mean is discussed and the comparison is again between the actual dollar amounts spent by retail household versus other-industry households, with a percentage indicating the relationship between the two. This approach mirrors that taken with household income in the last section.

It is worth noting at the outset that the housing profile of the two types of household is reasonably similar: about one third are renting and two-thirds own or are paying off a mortgage. Among the latter group, retail households are slightly less likely to have fully paid off their mortgages (20% compared with 25%). This similarity in

their housing profile makes comparing their housing costs appropriate, and these are the first two items in Table 6.2. Retail households on average spent about $13,000 per annum on their mortgages, which was about 90% of the mortgage expenditure incurred by other-industry households. In the case of rental expenditure, the retail households spent between $15,000 and $16,000 per annum, which was 94% of what other households spent.

TABLE 6.2: ANNUAL HOUSEHOLD NON-DISCRETIONARY EXPENDITURE, AUSTRALIA 2013

Mortgage	*Mean*	*Trimmed mean*	*Median*
Retail ($)	13,825	12,749	13,020
Other industries ($)	15,607	14,227	14,400
Retail as percentage	89	90	90
Rent			
Retail ($)	16,041	15,598	15,384
Other industries ($)	17,355	16,608	16,680
Retail as percentage	92	94	92
Groceries			
Retail ($)	9,662	9,367	8,343
Other industries ($)	10,339	9,755	9,907
Retail as percentage	93	96	84
Utilities			
Retail ($)	1,812	1,654	1,500
Other industries ($)	1,892	1,748	1,600
Retail as percentage	96	95	94
Public transport			
Retail ($)	502	262	0
Other industries ($)	650	418	0
Retail as percentage	77	63	
Motor vehicle fuel			
Retail ($)	2,539	2,410	2,160
Other industries ($)	2,546	2,279	2,040
Retail as percentage	100	106	106
Telephone and internet			
Retail ($)	1,958	1,693	1,440
Other industries ($)	1,973	1,689	1,500
Retail as percentage	99	100	96
Clothing for women			
Retail ($)	939	761	600
Other industries ($)	927	735	600
Retail as percentage	101	103	100
Clothing for men			
Retail ($)	583	481	360
Other industries ($)	589	452	360
Retail as percentage	99	107	100
Clothing for children			
Retail ($)	525	352	0
Other industries ($)	468	339	0
Retail as percentage	112	104	

Source: unpublished HILDA data. Population: Households with at least one adult employee present. Note: Retail defined as households with at least one retail employee. Trimmed mean removes 0.05 of the distribution. Sample sizes: retail = 578; other industries = 5,271.

Groceries were the next major item of household expenditure: between $9,000 and $10,000 per annum, and retail households were even closer in expenditure to other households at 96%. The cost of utilities—electricity, gas, water—was also similar between the two household categories (95%). While public transport costs saw a lower comparison—just 63%—this was overshadowed by the larger comparison for motor vehicle fuel, where retail households spent 106% more than other-industry households. The actual dollars spent by households in the fuel category ($2,300 to $2,400) also dwarfed the level of expenditure in the public transport category ($300 to $400). Overall, retail households spent in dollar terms an average of 98% of what other-industry households spent on the non-housing elements of non-discretionary expenditure.

This pattern of expenditure can be viewed in the context of available household income. The last section showed that retail households earned only about 84% of the wage and salary income of other-industry households. This rose to 87% through government transfers and other sources of income—and this constituted an actual increase in dollars available. As a result of taxation the proportion rose again (to 91%)—largely because other-industry households paid more tax—but the dollars available actually fell. When it comes to non-discretionary expenditure, the average dollar outlays for retail households almost match those for other-industry households (98%). This suggests that the burden of cost-of-living is almost equivalent for retail households compared with other-industry households. Yet their financial resources for meeting these needs are relatively weaker.

The difference between the two categories of household are also evident in the areas of discretionary expenditure, suggesting that retail households deal with their cost-of-living pressures by cutting back on what might be viewed as non-essentials. Table 6.3 outlines annual expenditure on these discretionary items and shows that households spent between $2,500 and $3,000 on meals outside the home. The retail household spent 81% of what other households spent and a similar percentage was evident for alcohol expenditure. In the case of cigarettes retail households spent more than other households but this was the only item of discretionary expenditure where this was evident (though expenditure on medicines was about the same for both categories of household). On all other items the retail households spent considerably less: 69% on doctor's fees; 75% on home repairs or renovations; 83% on car repairs and maintenance. Overall, retail households spent in dollar terms an average of 81% of what other-industry households spent on discretionary expenditure.

These patterns of expenditure are, of course, part of a more complex story about how low income households function. Lower expenditure on an item can reflect less access to that item, or a lower cost in purchasing that item. For example, members of low income households may be less willing to visit the doctor, but their access to bulk billing may be greater. Low income households may be less likely to use private education, or take out private health insurance, and the lower costs incurred here will reflect this. Despite this complexity, Table 6.3 does suggest that retail households have lower levels of spending on nearly all areas of discretionary expenditure, and spent across all these items just 81% of what other-industry households spent. Yet they spent 98% of what other-industry households spent when it came to non-discretionary expenditure. To what extent do these differences indicate that retail households face financial hardship because of their limited financial resources? The next section addresses this question.

TABLE 6.3: ANNUAL HOUSEHOLD DISCRETIONARY EXPENDITURE, AUSTRALIA 2013

Meals eaten out	*Mean*	*Trimmed mean*	*Median*
Retail ($)	2,666	2,444	2,607
Other industries ($)	3,412	3,005	2,607
Retail as percentage	78	81	100
Alcohol			
Retail ($)	1,350	1,075	782
Other industries ($)	1,613	1,354	1,043
Retail as percentage	84	79	75
Cigarettes			
Retail ($)	764	542	0
Other industries ($)	714	419	0
Retail as percentage	107	129	
Doctor fees			
Retail ($)	695	514	300
Other industries ($)	1,034	748	500
Retail as percentage	67	69	60
Medicines			
Retail ($)	480	337	200
Other industries ($)	438	341	206
Retail as percentage	110	99	97
Health insurance			
Retail ($)	1,179	987	368
Other industries ($)	1,372	1,230	960
Retail as percentage	86	80	38
Other insurance			
Retail ($)	1,608	1,425	1,250
Other industries ($)	1,712	1,516	1,400
Retail as percentage	94	94	89
Education fees			
Retail ($)	818	385	0
Other industries ($)	1,731	788	0
Retail as percentage	47	49	
Home repairs, renovations			
Retail ($)	2,103	885	300
Other industries ($)	3,262	1,179	400
Retail as percentage	64	75	75
Car repairs, maintenance			
Retail ($)	868	752	650
Other industries ($)	1,050	906	750
Retail as percentage	83	83	87

Source: unpublished HILDA data. Population: Households with at least one adult employee present. Note: Retail defined as households with at least one retail employee. Trimmed mean removes 0.05 of the distribution. Sample sizes: retail = 578; other industries = 5,271.

6.3 *Household financial hardship*

Assessing the financial hardship of households can also be complex but a number of standard questionnaire items have been developed over the years. This section looks at several of these: the ability to raise funds for an emergency and a set of hardship circumstances. But before looking at these, the self-assessed prosperity of households is presented (Table 6.4). This table requires caution since individuals hold quite subjective views regarding poverty and prosperity. Furthermore, all of these items were collected in the HILDA self-completion questionnaire, which is an individual-level instrument. The reporting here is, however, for the household. In the case of the prosperity question, other persons in the household may have taken a different view.

Table 6.4 suggests that respondents from retail households are more likely (39%) to place themselves in the 'Very poor', 'Poor' or 'Just getting along categories' compared to respondents from other-industry households (29%). Conversely, 59% of retail households considered themselves as either 'Very comfortable' or 'Reasonably comfortable'. The equivalent figure for other-industry households was 70%.

TABLE 6.4: SELF-ASSESSED HOUSEHOLD PROSPERITY, AUSTRALIA 2013 (%)

	Retail	*Other industries*
Prosperous	2	2
Very comfortable	12	16
Reasonably comfortable	47	54
Just getting along	36	26
Poor	3	2
Very poor	0	1
Total	100	100

Source: unpublished HILDA data. Population: Persons in household where at least one adult employee present. Note: Retail defined as households with at least one retail employee. Table shows responses from self-completion questionnaire, which not all persons answered. Sample sizes: retail = 500; other industries = 4,570. Actual question: Given your current needs and financial responsibilities, would you say that you and your family are ...

For the next two tables, the self-completion questionnaire is again used, but the results are less subjective and are more likely to represent the household situation rather than that of the individual. Table 6.5 uses a common questionnaire scenario—the ability to raise emergency funds—and the difficulty the household faces in raising such money is regarded as one indication of limited financial resources.

Whereas nearly two-thirds of the respondents from the other-industry household indicated that they could easily raise emergency funds, less than half of the respondents from the retail household indicated this. Indeed, whereas 16% of the former indicated they either couldn't raise the money, or would need to do something drastic, for the respondents from the retail household the proportion was considerably higher at 28%.

TABLE 6.5: ABILITY TO RAISE MONEY FOR EMERGENCY, AUSTRALIA 2013 (%)

	Retail	*Other industries*
Could easily raise emergency funds	48	62
Could raise emergency funds, but it would involve some sacrifices	24	22
Would have to do something drastic to raise emergency funds	11	9
Could not raise emergency funds	17	7
Total	100	100

Source: unpublished HILDA data. Population: Persons in household where at least one adult employee present. Note: Retail defined as households with at least one retail employee. Table shows responses from self-completion questionnaire, which not all persons answered. Sample sizes: retail = 497; other industries = 4,553. Actual question: Suppose you had only one week to raise $3000 for an emergency. Which of the following best describes how hard it would be for you to get that money?

The final table in this section—Table 6.6—is a more extreme guide to financial hardship and often elicits few low 'Yes' responses from households whose members are employed. It usually provides more insights into households reliant on welfare, but it is still worth briefly examining.

For the respondents from both categories of household the more dire circumstances—such going without meals or not heating their homes—were highly unlikely. The two items which elicited larger responses—not paying utility bills on time or asking friends for family for financial help—showed differences between the two categories. Retail households did appear to have more difficulty here, though these differences were modest in the order of about 6 percentage points.

TABLE 6.6: HOUSEHOLD FINANCIAL HARDSHIP, AUSTRALIA 2013 (%)

Since beginning of year:	*Retail*	*Other industries*
Could not pay electricity, gas or telephone bills on time	18	12
Could not pay the mortgage or rent on time	8	6
Pawned or sold something	4	4
Went without meals	2	3
Was unable to heat home	2	2
Asked for financial help from friends or family	16	11
Asked for help from welfare/community organisations	2	2

Source: unpublished HILDA data. Population: Persons in household where at least one adult employee present. Note: Retail defined as households with at least one retail employee. Table shows Yes responses from self-completion questionnaire, which not all persons answered. Sample sizes: retail = 495 to 498; other industries = 4,551 to 4,560.Actual question: Since January 2013 did any of the following happen to you because of a shortage of money?

Summary

Retail households have wage and salary income which is only 84% of that of other-industry households. The combination of government transfers and taxation raises this proportion to 91%. When it comes to expenditure, retail households have similar patterns for non-discretionary items, spending in dollar terms 98% of what other-industry households spent. In other words, despite having less financial resources, the essential cost of living for retail households was very similar to that for other-industry households. By contrast, in the area of discretionary expenditure retail households spent in dollar terms considerably less—just 81%—of what other-industry households

spent. In a sense, retail households found savings that were not possible in the domain of non-discretionary expenditure.

When it comes to financial hardship, the exposure of retail households to difficult financial circumstances is slightly worse than that of other households. More convincing, however, are the results which show that retail households face greater difficulties in raising emergency funds. This suggests that their financial resources are more limited than those of other-industry households.

Overall, both the lower earnings of the retail workforce, and their greater incidence of being low paid, translate into lower living standards at the household level. While the issue of household incomes is a complex one, the overall patterns in this chapter are internally consistent, and they are also consistent with the earnings results presented in the rest of this report.

Appendix

Additional tables

The appendix contains additional tables referenced in the main text. These tables are all numbered consecutively and begin with the letter A. Some of these tables provide more detail than was appropriate in the main text. Others provide the actual data upon which some of the graphs are based.

Following these tables is a short account of the report author's relevant expertise.

TABLE A1: RETAIL INDUSTRY EMPLOYMENT, AUSTRALIA 2011

	Counts			*Row percentages*			*Column percentages*		
Retail industry classes	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Supermarket and Grocery Stores	70,453	155,052	225,505	31.2	68.8	100.0	36.0	25.2	27.8
Clothing Retailing	19,272	59,404	78,676	24.5	75.5	100.0	9.8	9.7	9.7
Department Stores	21,067	45,725	66,792	31.5	68.5	100.0	10.8	7.4	8.2
Pharmaceutical, Cosmetic and Toiletry Goods Retailing	13,705	48,847	62,552	21.9	78.1	100.0	7.0	7.9	7.7
Hardware and Building Supplies Retailing	5,714	41,351	47,065	12.1	87.9	100.0	2.9	6.7	5.8
Electrical, Electronic and Gas Appliance Retailing	5,452	35,405	40,857	13.3	86.7	100.0	2.8	5.8	5.0
Retail Trade, nfd	7,149	33,642	40,791	17.5	82.5	100.0	3.7	5.5	5.0
Other Store-Based Retailing nec	8,047	23,283	31,330	25.7	74.3	100.0	4.1	3.8	3.9
Other Specialised Food Retailing	7,170	14,725	21,895	32.7	67.3	100.0	3.7	2.4	2.7
Liquor Retailing	2,672	15,345	18,017	14.8	85.2	100.0	1.4	2.5	2.2
Newspaper and Book Retailing	5,012	12,266	17,278	29.0	71.0	100.0	2.6	2.0	2.1
Furniture Retailing	1,141	15,591	16,732	6.8	93.2	100.0	0.6	2.5	2.1
Watch and Jewellery Retailing	3,096	13,215	16,311	19.0	81.0	100.0	1.6	2.1	2.0
Fresh Meat, Fish and Poultry Retailing	4,168	11,312	15,480	26.9	73.1	100.0	2.1	1.8	1.9
Footwear Retailing	4,355	10,454	14,809	29.4	70.6	100.0	2.2	1.7	1.8
Sport and Camping Equipment Retailing	2,778	7,921	10,699	26.0	74.0	100.0	1.4	1.3	1.3
Fruit and Vegetable Retailing	2,928	7,762	10,690	27.4	72.6	100.0	1.5	1.3	1.3
Manchester and Other Textile Goods Retailing	1,499	8,517	10,016	15.0	85.0	100.0	0.8	1.4	1.2
Computer and Computer Peripheral Retailing	720	6,283	7,003	10.3	89.7	100.0	0.4	1.0	0.9
Houseware Retailing	1,489	4,897	6,386	23.3	76.7	100.0	0.8	0.8	0.8
Garden Supplies Retailing	511	4,361	4,872	10.5	89.5	100.0	0.3	0.7	0.6
Antique and Used Goods Retailing	399	4,459	4,858	8.2	91.8	100.0	0.2	0.7	0.6
Stationery Goods Retailing	758	3,689	4,447	17.0	83.0	100.0	0.4	0.6	0.5
Other Personal Accessory Retailing	727	3,562	4,289	17.0	83.0	100.0	0.4	0.6	0.5
Entertainment Media Retailing	1,120	3,030	4,150	27.0	73.0	100.0	0.6	0.5	0.5
Toy and Game Retailing	1,295	2,675	3,970	32.6	67.4	100.0	0.7	0.4	0.5
Floor Coverings Retailing	240	3,547	3,787	6.3	93.7	100.0	0.1	0.6	0.5

Continued ...

Retail industry classes	*Counts*			*Row percentages*			*Column percentages*		
	Juniors	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Other Electrical and Electronic Goods Retailing	364	3,321	3,685	9.9	90.1	100.0	0.2	0.5	0.5
Flower Retailing	505	2,973	3,478	14.5	85.5	100.0	0.3	0.5	0.4
Non-Store Retailing	219	3,195	3,414	6.4	93.6	100.0	0.1	0.5	0.4
Food Retailing, nfd	712	2,595	3,307	21.5	78.5	100.0	0.4	0.4	0.4
Other Store-Based Retailing, nfd	457	2,615	3,072	14.9	85.1	100.0	0.2	0.4	0.4
Marine Equipment Retailing	196	1,482	1,678	11.7	88.3	100.0	0.1	0.2	0.2
Retail Commission-Based Buying and/or Selling	34	956	990	3.4	96.6	100.0	0.0	0.2	0.1
Electrical and Electronic Goods Retailing, nfd	58	561	619	9.4	90.6	100.0	0.0	0.1	0.1
Furniture, Floor Coverings, Houseware and Textile Goods Retailing, nfd	39	343	382	10.2	89.8	100.0	0.0	0.1	0.0
Clothing, Footwear and Personal Accessory Retailing, nfd	66	307	373	17.7	82.3	100.0	0.0	0.0	0.0
Hardware, Building and Garden Supplies Retailing, nfd	22	239	261	8.4	91.6	100.0	0.0	0.0	0.0
Pharmaceutical and Other Store-Based Retailing, nfd	14	164	178	7.9	92.1	100.0	0.0	0.0	0.0
Specialised Food Retailing, nfd	26	145	171	15.2	84.8	100.0	0.0	0.0	0.0
Recreational Goods Retailing, nfd	20	121	141	14.2	85.8	100.0	0.0	0.0	0.0
Non-Store Retailing and Retail Commission-Based Buying and/or Selling, nfd	21	109	130	16.2	83.8	100.0	0.0	0.0	0.0
Total	195,690	615,446	811,136	24.1	75.9	100.0	100.0	100.0	100.0

Source: 2011 Census. Population: Employees in industry classes within retail (ANZSIC 4 digit). Juniors defined as aged under 21. Adults defined as aged 21 to 99.

TABLE A2: INDUSTRY CLASSES EXCLUDED FROM RETAIL

	Counts			*Rows percentages*			*Column percentages*		
Retail industry classes	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Car Retailing	3,456	40,600	44,056	7.8	92.2	100.0	37.8	48.7	47.6
Fuel Retailing	2,879	23,419	26,298	10.9	89.1	100.0	31.5	28.1	28.4
Motor Vehicle Parts Retailing	1,860	10,078	11,938	15.6	84.4	100.0	20.4	12.1	12.9
Tyre Retailing	526	5,287	5,813	9.0	91.0	100.0	5.8	6.3	6.3
Motor Cycle Retailing	311	1,744	2,055	15.1	84.9	100.0	3.4	2.1	2.2
Trailer and Other Motor Vehicle Retailing	41	1,045	1,086	3.8	96.2	100.0	0.4	1.3	1.2
Motor Vehicle Retailing, nfd	40	941	981	4.1	95.9	100.0	0.4	1.1	1.1
Motor Vehicle and Motor Vehicle Parts Retailing, nfd	20	181	201	10.0	90.0	100.0	0.2	0.2	0.2
Motor Vehicle Parts and Tyre Retailing, nfd	3	49	52	5.8	94.2	100.0	0.0	0.1	0.1
Total	9,136	83,344	92,480	9.9	90.1	100.0	100.0	100.0	100.0

Source: 2011 Census. Population: Employees in ANZSIC Subdivisions 39 and 40. Juniors defined as aged under 21. Adults defined as aged 21 to 99.

TABLE A3: OCCUPATIONS IN THE RETAIL INDUSTRY, AUSTRALIA 2011

	Counts			*Row percentages*			*Column percentages*		
Occupations	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Sales Assistants (General)	97,403	220,319	317,722	30.7	69.3	100.0	49.8	35.8	39.2
Checkout Operators and Office Cashiers	42,911	36,954	79,865	53.7	46.3	100.0	21.9	6.0	9.8
Retail Managers	3,494	68,278	71,772	4.9	95.1	100.0	1.8	11.1	8.8
Shelf Fillers	14,129	28,123	42,252	33.4	66.6	100.0	7.2	4.6	5.2
Pharmacy Sales Assistants	9,408	20,316	29,724	31.7	68.3	100.0	4.8	3.3	3.7
Storepersons	3,295	19,150	22,445	14.7	85.3	100.0	1.7	3.1	2.8
Retail Supervisors	1,964	19,559	21,523	9.1	90.9	100.0	1.0	3.2	2.7
Butchers and Smallgoods Makers	1,994	8,821	10,815	18.4	81.6	100.0	1.0	1.4	1.3
Pharmacists	218	10,432	10,650	2.0	98.0	100.0	0.1	1.7	1.3
Purchasing and Supply Logistics Clerks	613	9,162	9,775	6.3	93.7	100.0	0.3	1.5	1.2
General Clerks	640	8,876	9,516	6.7	93.3	100.0	0.3	1.4	1.2
Sales Representatives	462	7,708	8,170	5.7	94.3	100.0	0.2	1.3	1.0
Advertising, Public Relations and Sales Managers	53	5,809	5,862	0.9	99.1	100.0	0.0	0.9	0.7
Accounting Clerks	174	5,566	5,740	3.0	97.0	100.0	0.1	0.9	0.7
Packers	1,183	4,429	5,612	21.1	78.9	100.0	0.6	0.7	0.7
Sales Assistants and Salespersons nfd	1,254	4,050	5,304	23.6	76.4	100.0	0.6	0.7	0.7
ICT Sales Assistants	1,383	3,634	5,017	27.6	72.4	100.0	0.7	0.6	0.6
Bakers and Pastrycooks	679	4,247	4,926	13.8	86.2	100.0	0.3	0.7	0.6
Office Managers	94	4,755	4,849	1.9	98.1	100.0	0.0	0.8	0.6
Forklift Drivers	114	3,751	3,865	2.9	97.1	100.0	0.1	0.6	0.5
Models and Sales Demonstrators	160	3,316	3,476	4.6	95.4	100.0	0.1	0.5	0.4
Delivery Drivers	227	3,094	3,321	6.8	93.2	100.0	0.1	0.5	0.4
Medical Technicians	215	2,947	3,162	6.8	93.2	100.0	0.1	0.5	0.4
Bookkeepers	59	3,073	3,132	1.9	98.1	100.0	0.0	0.5	0.4

Continued ...

	Counts			Row percentages			Column percentages		
Occupations	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Other Miscellaneous Labourers	854	2,180	3,034	28.1	71.9	100.0	0.4	0.4	0.4
Receptionists	450	2,312	2,762	16.3	83.7	100.0	0.2	0.4	0.3
Not stated	616	2,104	2,720	22.6	77.4	100.0	0.3	0.3	0.3
Florists	314	2,355	2,669	11.8	88.2	100.0	0.2	0.4	0.3
Retail and Wool Buyers	44	2,608	2,652	1.7	98.3	100.0	0.0	0.4	0.3
Accountants	12	2,611	2,623	0.5	99.5	100.0	0.0	0.4	0.3
Truck Drivers	57	2,486	2,543	2.2	97.8	100.0	0.0	0.4	0.3
Inadequately described	244	2,190	2,434	10.0	90.0	100.0	0.1	0.4	0.3
General Managers	8	2,365	2,373	0.3	99.7	100.0	0.0	0.4	0.3
Inquiry Clerks	306	2,050	2,356	13.0	87.0	100.0	0.2	0.3	0.3
Commercial Cleaners	630	1,646	2,276	27.7	72.3	100.0	0.3	0.3	0.3
Visual Merchandisers	108	2,142	2,250	4.8	95.2	100.0	0.1	0.3	0.3
Payroll Clerks	32	2,191	2,223	1.4	98.6	100.0	0.0	0.4	0.3
Advertising and Marketing Professionals	54	2,112	2,166	2.5	97.5	100.0	0.0	0.3	0.3
Food Trades Assistants	702	1,441	2,143	32.8	67.2	100.0	0.4	0.2	0.3
Call or Contact Centre and Customer Service Managers	64	2,066	2,130	3.0	97.0	100.0	0.0	0.3	0.3
Keyboard Operators	139	1,795	1,934	7.2	92.8	100.0	0.1	0.3	0.2
Electronics Trades Workers	231	1,663	1,894	12.2	87.8	100.0	0.1	0.3	0.2
Kitchenhands	696	968	1,664	41.8	58.2	100.0	0.4	0.2	0.2
Technical Sales Representatives	65	1,550	1,615	4.0	96.0	100.0	0.0	0.3	0.2
Security Officers and Guards	68	1,480	1,548	4.4	95.6	100.0	0.0	0.2	0.2
ICT Support Technicians	99	1,441	1,540	6.4	93.6	100.0	0.1	0.2	0.2
Bar Attendants and Baristas	489	1,050	1,539	31.8	68.2	100.0	0.2	0.2	0.2
Transport and Despatch Clerks	73	1,403	1,476	4.9	95.1	100.0	0.0	0.2	0.2
Waiters	657	726	1,383	47.5	52.5	100.0	0.3	0.1	0.2

Continued ...

	Counts			*Row percentages*			*Column percentages*		
Occupations	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Cafe Workers	561	794	1,355	41.4	58.6	100.0	0.3	0.1	0.2
Motor Mechanics	225	1,118	1,343	16.8	83.2	100.0	0.1	0.2	0.2
Supply and Distribution Managers	10	1,320	1,330	0.8	99.2	100.0	0.0	0.2	0.2
Personal Assistants	43	1,243	1,286	3.3	96.7	100.0	0.0	0.2	0.2
Human Resource Managers	20	1,258	1,278	1.6	98.4	100.0	0.0	0.2	0.2
ICT Sales Professionals	110	1,162	1,272	8.6	91.4	100.0	0.1	0.2	0.2
Other Specialist Managers	5	1,175	1,180	0.4	99.6	100.0	0.0	0.2	0.1
Software and Applications Programmers	24	1,143	1,167	2.1	97.9	100.0	0.0	0.2	0.1
Other Sales Assistants and Salespersons	219	929	1,148	19.1	80.9	100.0	0.1	0.2	0.1
Finance Managers	6	1,100	1,106	0.5	99.5	100.0	0.0	0.2	0.1
Graphic and Web Designers, and Illustrators	35	1,028	1,063	3.3	96.7	100.0	0.0	0.2	0.1
Contract, Program and Project Administrators	21	1,033	1,054	2.0	98.0	100.0	0.0	0.2	0.1
Garden and Nursery Labourers	148	897	1,045	14.2	85.8	100.0	0.1	0.1	0.1
ICT Managers	0	1,015	1,015	0.0	100.0	100.0	0.0	0.2	0.1
Motor Vehicle and Vehicle Parts Salespersons	106	900	1,006	10.5	89.5	100.0	0.1	0.1	0.1
Telemarketers	188	766	954	19.7	80.3	100.0	0.1	0.1	0.1
Beauty Therapists	128	741	869	14.7	85.3	100.0	0.1	0.1	0.1
Hairdressers	215	650	865	24.9	75.1	100.0	0.1	0.1	0.1
Management and Organisation Analysts	4	807	811	0.5	99.5	100.0	0.0	0.1	0.1
Jewellers	60	726	786	7.6	92.4	100.0	0.0	0.1	0.1
Performing Arts Technicians	103	666	769	13.4	86.6	100.0	0.1	0.1	0.1
Photographic Developers and Printers	130	626	756	17.2	82.8	100.0	0.1	0.1	0.1
Other Hospitality, Retail and Service Managers	16	713	729	2.2	97.8	100.0	0.0	0.1	0.1
Managers nfd	17	711	728	2.3	97.7	100.0	0.0	0.1	0.1
Secretaries	45	674	719	6.3	93.7	100.0	0.0	0.1	0.1

Continued ...

Occupations	Counts			Row percentages			Column percentages		
	Juniors	*Adults*	*Total*	*Juniors*	*Adults*	*Total*	*Juniors*	*Adults*	*Total*
Human Resource Professionals	6	710	716	0.8	99.2	100.0	0.0	0.1	0.1
Cooks	97	619	716	13.5	86.5	100.0	0.0	0.1	0.1
Fashion, Industrial and Jewellery Designers	16	694	710	2.3	97.7	100.0	0.0	0.1	0.1
Call or Contact Centre Workers	87	620	707	12.3	87.7	100.0	0.0	0.1	0.1
Electricians	67	633	700	9.6	90.4	100.0	0.0	0.1	0.1
Sewing Machinists	34	654	688	4.9	95.1	100.0	0.0	0.1	0.1
Other Sales Support Workers	89	577	666	13.4	86.6	100.0	0.0	0.1	0.1
Labourers nfd	167	493	660	25.3	74.7	100.0	0.1	0.1	0.1
Freight and Furniture Handlers	111	545	656	16.9	83.1	100.0	0.1	0.1	0.1
Training and Development Professionals	11	607	618	1.8	98.2	100.0	0.0	0.1	0.1
Street Vendors and Related Salespersons	109	485	594	18.4	81.6	100.0	0.1	0.1	0.1
Interior Designers	6	584	590	1.0	99.0	100.0	0.0	0.1	0.1
Database and Systems Administrators, and ICT Security Specialists	8	578	586	1.4	98.6	100.0	0.0	0.1	0.1
Clothing Trades Workers	34	547	581	5.9	94.1	100.0	0.0	0.1	0.1
Nurserypersons	35	546	581	6.0	94.0	100.0	0.0	0.1	0.1
Other Miscellaneous Technicians and Trades Workers	35	541	576	6.1	93.9	100.0	0.0	0.1	0.1
Meat, Poultry and Seafood Process Workers	81	492	573	14.1	85.9	100.0	0.0	0.1	0.1
Floor Finishers	93	463	556	16.7	83.3	100.0	0.0	0.1	0.1
Other Clerical and Office Support Workers	66	474	540	12.2	87.8	100.0	0.0	0.1	0.1
Chefs	29	482	511	5.7	94.3	100.0	0.0	0.1	0.1
Production Managers	3	502	505	0.6	99.4	100.0	0.0	0.1	0.1
Road and Rail Drivers nfd	9	493	502	1.8	98.2	100.0	0.0	0.1	0.1
Precision Metal Trades Workers	63	439	502	12.5	87.5	100.0	0.0	0.1	0.1
Total	192,833	589,277	782,110	11.4	88.6	100.0	98.5	95.7	96.4

Source: 2011 Census. Population: Employees in occupations (ANZSCO 4 digit) within the retail industry where employment is greater than 500 persons. Juniors defined as aged under 21. Adults defined as aged 21 to 99.

TABLE A4: EMPLOYEES WITH AND WITHOUT PAID LEAVE ENTITLEMENTS, AUSTRALIA 2013

Industry	*With entitlements*	*Without entitlements*	*Total*	*Casuals as %*
Agric, forestry, fishing	79,200	52,500	131,600	39.9
Mining	238,600	24,500	263,000	9.3
Manufacturing	658,500	136,300	794,800	17.1
Elect, gas, water, waste	134,300	11,700	146,000	8.0
Construction	518,100	144,800	662,900	21.8
Wholesale trade	289,200	54,600	343,800	15.9
DIVISION G	646,400	419,000	1,065,400	39.3
Accomm and food services	233,700	441,300	675,000	65.4
Trans, postal, warehousing	367,000	108,100	475,100	22.8
Information media, telecomm	141,400	25,200	166,600	15.1
Finance and insurance	365,400	28,000	393,500	7.1
Rental, hiring, real estate	113,800	22,600	136,400	16.6
Profess, scientific tech	570,000	90,400	660,400	13.7
Admin and support services	159,600	105,600	265,200	39.8
Public admin and safety	694,800	74,500	769,300	9.7
Education and training	677,700	146,200	823,900	17.7
Health and social assistance	992,800	246,200	1,239,000	19.9
Arts and recreation services	104,900	58,800	163,700	35.9
Other services	257,100	68,600	325,700	21.1
All industries	7,242,300	2,259,000	9,501,400	23.8

Source: ABS Employee Earnings, Benefits and Trade Union Membership (EEBTUM), August 2013. Spreadsheet: 63100DO023 201308, Table 23. Population: Employees (excluding owner managers or incorporated enterprises) in main job. Note: Casuals is percentage of total who are without entitlements.

TABLE A5: GROWTH IN ORDINARY HOURLY RATES OF PAY, AUSTRALIA 2001 TO 2014

	Data used in graph		*Original ABS index*	
Time period	*Division.G*	*All.industries*	*Division G*	*All industries*
2001-03-01	100.0	100.0	77.3	74.6
2001-06-01	100.3	100.5	77.5	75.0
2001-09-01	101.3	101.7	78.3	75.9
2001-12-01	102.1	102.4	78.9	76.4
2002-03-01	102.6	103.1	79.3	76.9
2002-06-01	103.2	103.8	79.8	77.4
2002-09-01	104.4	105.1	80.7	78.4
2002-12-01	105.2	105.8	81.3	78.9
2003-03-01	105.8	106.8	81.8	79.7
2003-06-01	106.2	107.5	82.1	80.2
2003-09-01	107.2	108.8	82.9	81.2
2003-12-01	108.5	109.8	83.9	81.9
2004-03-01	109.2	110.7	84.4	82.6
2004-06-01	109.6	111.3	84.7	83.0
2004-09-01	110.6	112.6	85.5	84.0
2004-12-01	111.8	113.8	86.4	84.9
2005-03-01	112.2	115.0	86.7	85.8
2005-06-01	113.1	115.7	87.4	86.3
2005-09-01	114.5	117.4	88.5	87.6
2005-12-01	115.4	118.4	89.2	88.3
2006-03-01	116.4	119.4	90.0	89.1
2006-06-01	116.9	120.5	90.4	89.9
2006-09-01	117.9	121.8	91.1	90.9
2006-12-01	118.5	123.1	91.6	91.8
2007-03-01	119.8	124.3	92.6	92.7
2007-06-01	120.6	125.3	93.2	93.5
2007-09-01	121.6	126.9	94.0	94.7
2007-12-01	124.6	128.2	96.3	95.6
2008-03-01	125.5	129.4	97.0	96.5
2008-06-01	126.0	130.6	97.4	97.4
2008-09-01	127.3	132.2	98.4	98.6
2008-12-01	129.5	133.6	100.1	99.7
2009-03-01	130.3	134.9	100.7	100.6
2009-06-01	130.4	135.5	100.8	101.1
2009-09-01	131.4	136.7	101.6	102.0
2009-12-01	132.6	137.5	102.5	102.6
2010-03-01	133.4	138.7	103.1	103.5
2010-06-01	134.0	139.7	103.6	104.2
2010-09-01	136.1	141.7	105.2	105.7
2010-12-01	137.0	142.9	105.9	106.6
2011-03-01	137.8	144.1	106.5	107.5
2011-06-01	138.4	145.0	107.0	108.2
2011-09-01	140.2	146.8	108.4	109.5
2011-12-01	141.1	148.1	109.1	110.5
2012-03-01	141.9	149.3	109.7	111.4
2012-06-01	142.2	150.4	109.9	112.2
2012-09-01	143.5	152.1	110.9	113.5
2012-12-01	144.6	153.2	111.8	114.3
2013-03-01	145.7	154.2	112.6	115.0
2013-06-01	146.1	154.8	112.9	115.5
2013-09-01	147.6	156.3	114.1	116.6
2013-12-01	148.4	157.1	114.7	117.2
2014-03-01	149.3	158.2	115.4	118.0
2014-06-01	149.5	158.8	115.6	118.5
2014-09-01	150.8	160.2	116.6	119.5
2014-12-01	151.7	161.1	117.3	120.2

Source: ABS Wage Price Index, Ordinary Hourly Rates of Pay Excluding Bonuses. The original ABS index has been rescaled to index at 100 (in 2001) for use in the graph. Spreadsheet: 634509b. Population: Employees in all industries except agriculture, forestry or fishing.

TABLE A6: ANNUAL MOVEMENTS IN ORDINARY HOURLY RATES OF PAY, AUSTRALIA 2001 TO 2014

Time period	*Division G*	*All industries*
2001-03-01	2.9	3.8
2001-06-01	2.8	3.6
2001-09-01	2.6	3.7
2001-12-01	2.7	3.4
2002-03-01	2.6	3.1
2002-06-01	3.0	3.2
2002-09-01	3.1	3.3
2002-12-01	3.0	3.3
2003-03-01	3.2	3.6
2003-06-01	2.9	3.6
2003-09-01	2.7	3.6
2003-12-01	3.2	3.8
2004-03-01	3.2	3.6
2004-06-01	3.2	3.5
2004-09-01	3.1	3.4
2004-12-01	3.0	3.7
2005-03-01	2.7	3.9
2005-06-01	3.2	4.0
2005-09-01	3.5	4.3
2005-12-01	3.2	4.0
2006-03-01	3.8	3.8
2006-06-01	3.4	4.2
2006-09-01	2.9	3.8
2006-12-01	2.7	4.0
2007-03-01	2.9	4.0
2007-06-01	3.1	4.0
2007-09-01	3.2	4.2
2007-12-01	5.1	4.1
2008-03-01	4.8	4.1
2008-06-01	4.5	4.2
2008-09-01	4.7	4.1
2008-12-01	3.9	4.3
2009-03-01	3.8	4.2
2009-06-01	3.5	3.8
2009-09-01	3.3	3.4
2009-12-01	2.4	2.9
2010-03-01	2.4	2.9
2010-06-01	2.8	3.1
2010-09-01	3.5	3.6
2010-12-01	3.3	3.9
2011-03-01	3.3	3.9
2011-06-01	3.3	3.8
2011-09-01	3.0	3.6
2011-12-01	3.0	3.7
2012-03-01	3.0	3.6
2012-06-01	2.7	3.7
2012-09-01	2.3	3.7
2012-12-01	2.5	3.4
2013-03-01	2.6	3.2
2013-06-01	2.7	2.9
2013-09-01	2.9	2.7
2013-12-01	2.6	2.5
2014-03-01	2.5	2.6
2014-06-01	2.4	2.6
2014-09-01	2.2	2.5
2014-12-01	2.3	2.6

Source: ABS Wage Price Index, Ordinary Hourly Rates of Pay Excluding Bonuses. Data show percentage change in the index from the corresponding quarter of the previous year. Spreadsheet: 634509b. Population: Employees in all industries except agriculture, forestry or fishing.

TABLE A7: GROWTH IN EMPLOYEE NOMINAL WEEKLY EARNINGS, AUSTRALIA 2001 TO 2013

	All employees		*Full-time*		*Adult FT*		*Adult non-man FT*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	100	100	100	100	100	100	100	100
2002	96	101	99	102	99	102	99	102
2003	107	105	105	107	105	107	107	106
2004	111	109	113	110	114	110	116	109
2005	112	116	114	116	114	117	116	116
2006	127	123	127	123	127	122	127	122
2007	120	130	125	129	125	129	124	130
2008	131	137	136	136	134	136	136	136
2009	133	141	133	141	133	141	132	140
2010	135	149	138	148	135	148	132	146
2011	139	155	144	157	142	156	139	153
2012	140	161	143	163	141	162	138	160
2013	145	164	152	167	149	166	144	163

Source: unpublished HILDA data. Populations: employees only, with restrictions as shown (FT = full-time, non-man = non-managerial). Note: definition of retail excludes ANZSIC Subdivisions 39 and 40. Data in graph smoothed to show underlying trend.

TABLE A8: GROWTH IN EMPLOYEE REAL WEEKLY EARNINGS, AUSTRALIA 2001 TO 2013

	All employees		*Full-time*		*Adult FT*		*Adult non-man FT*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	100	100	100	100	100	100	100	100
2002	93	98	96	99	96	99	96	99
2003	101	99	99	101	99	101	101	100
2004	102	101	104	101	105	101	107	101
2005	100	104	102	105	103	105	104	104
2006	110	106	111	106	110	106	111	106
2007	102	110	106	110	106	110	106	110
2008	107	112	111	111	109	111	111	111
2009	106	113	106	113	106	112	106	112
2010	105	116	107	115	105	115	103	113
2011	104	116	108	118	107	117	104	115
2012	103	119	106	120	104	119	102	118
2013	105	118	109	120	107	119	104	118

Source: unpublished HILDA data. Populations: employees only, with restrictions as shown (FT = full-time, non-man = non-managerial). Note: definition of retail excludes ANZSIC Subdivisions 39 and 40. Data in graph smoothed to show underlying trend. Earnings adjusted by CPI and then indexed to 100 in 2001.

TABLE A9: GROWTH IN EMPLOYEE NOMINAL HOURLY EARNINGS, AUSTRALIA 2001 TO 2013

	All employees		*Full-time*		*Adult FT*		*Adult non-man FT*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	100	100	100	100	100	100	100	100
2002	101	100	99	101	99	101	100	101
2003	106	104	106	107	107	107	108	106
2004	112	109	114	111	115	111	117	110
2005	112	115	115	117	116	117	117	116
2006	125	121	128	123	128	122	129	122
2007	120	126	126	130	126	130	126	130
2008	130	134	139	137	137	138	139	137
2009	136	138	134	143	134	143	135	141
2010	138	148	142	150	139	150	138	148
2011	145	153	148	158	146	157	145	155
2012	149	158	148	164	146	163	144	161
2013	159	160	161	168	157	167	155	165

Source: unpublished HILDA data. Populations: employees only, with restrictions as shown (FT = full-time, non-man = non-managerial). Note: definition of retail excludes ANZSIC Subdivisions 39 and 40. Data in graph smoothed to show underlying trend.

TABLE A10: GROWTH IN EMPLOYEE REAL HOURLY EARNINGS, AUSTRALIA 2001 TO 2013

	All employees		*Full-time*		*Adult FT*		*Adult non-man FT*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	100	100	100	100	100	100	100	100
2002	98	97	96	98	96	98	97	98
2003	100	98	101	101	101	101	102	100
2004	103	101	106	102	106	102	108	102
2005	100	104	104	105	105	105	105	104
2006	108	105	111	106	111	106	112	106
2007	102	107	107	110	107	110	107	110
2008	105	109	113	112	111	112	113	112
2009	109	110	107	115	107	114	108	113
2010	107	115	110	117	108	117	107	115
2011	109	115	111	119	110	118	109	116
2012	110	116	109	121	108	120	107	119
2013	115	115	116	121	114	121	112	119

Source: unpublished HILDA data. Populations: employees only, with restrictions as shown (FT = full-time, non-man = non-managerial). Note: definition of retail excludes ANZSIC Subdivisions 39 and 40. Data in graph smoothed to show underlying trend. Earnings adjusted by CPI and then indexed to 100 in 2001.

TABLE A11: PERCENTAGE OF LOW PAID EMPLOYEES, AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	33	15	33	15	38	18
2002	30	15	28	15	37	18
2003	32	15	31	14	37	18
2004	27	14	27	14	34	18
2005	29	14	29	14	38	18
2006	32	14	32	14	40	18
2007	33	13	35	14	45	18
2008	27	13	30	14	37	18
2009	28	11	33	14	40	18
2010	30	12	35	14	44	18
2011	26	11	35	14	41	18
2012	25	10	32	13	42	18
2013	23	12	28	15	36	18

Source: unpublished HILDA data. Populations: employees. Note: definitions of low paid as shown and based on hourly rates of pay.

TABLE A12: PERCENTAGE OF LOW PAID EMPLOYEES (ADJUSTED), AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	39	17	36	16	40	18
2002	39	19	34	17	36	18
2003	39	17	36	16	39	18
2004	32	17	30	15	34	18
2005	35	17	32	15	39	18
2006	38	17	36	16	39	18
2007	38	15	38	15	42	17
2008	32	15	33	16	39	18
2009	33	14	37	16	41	18
2010	36	14	39	15	44	18
2011	32	13	36	15	43	18
2012	31	13	34	14	42	18
2013	28	15	34	17	38	18

Source: unpublished HILDA data. Populations: employees (adjusted). Note: definitions of low paid as shown and based on hourly rates of pay adjusted for casual loading.

TABLE A13: PERCENTAGE OF LOW PAID ADULT EMPLOYEES, AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	16	10	18	12	32	19
2002	13	10	16	12	34	19
2003	17	10	20	11	35	19
2004	10	9	13	11	30	19
2005	13	9	18	11	38	19
2006	15	10	19	12	37	19
2007	15	8	26	11	39	18
2008	11	8	19	13	38	19
2009	14	7	23	13	44	19
2010	14	7	24	11	42	18
2011	12	7	23	12	41	18
2012	13	6	26	11	46	20
2013	10	8	21	13	38	19

Source: unpublished HILDA data. Populations: adult employees. Note: definitions of low paid as shown and based on hourly rates of pay.

TABLE A14: PERCENTAGE OF LOW PAID FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	17	8	34	16	41	19
2002	15	8	30	17	35	19
2003	18	8	37	15	43	19
2004	13	8	27	14	37	19
2005	16	8	33	14	43	19
2006	10	9	33	16	40	18
2007	12	7	43	17	45	18
2008	8	7	30	16	38	20
2009	11	6	35	17	40	19
2010	10	7	40	17	44	19
2011	7	6	38	17	44	19
2012	14	7	43	19	43	19
2013	15	6	36	17	44	19

Source: unpublished HILDA data. Populations: full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

TABLE A15: PERCENTAGE OF LOW PAID ADULT FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	12	5	28	13	42	20
2002	10	5	28	15	38	19
2003	13	5	35	13	42	19
2004	9	6	29	13	37	19
2005	10	5	34	14	46	19
2006	6	6	34	15	42	18
2007	8	5	39	15	47	19
2008	5	5	28	14	39	19
2009	6	4	32	16	45	19
2010	7	5	41	17	51	18
2011	5	4	36	15	43	19
2012	10	5	38	17	50	20
2013	12	4	39	16	46	19

Source: unpublished HILDA data. Populations: adult full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

TABLE A16: PERCENTAGE OF LOW PAID ADULT NON-MANAGERIAL FULL-TIME EMPLOYEES, AUSTRALIA 2001 TO 2013

	At or below NMW		*Two-thirds median*		*Bottom quintile*	
Year	*Retail*	*Other*	*Retail*	*Other*	*Retail*	*Other*
2001	15	6	28	12	45	19
2002	12	6	27	14	39	19
2003	14	6	38	13	46	19
2004	9	6	26	11	43	21
2005	11	5	31	12	48	19
2006	7	7	30	14	45	19
2007	9	5	41	15	53	20
2008	6	5	31	13	42	19
2009	7	5	32	14	51	20
2010	9	6	37	14	50	19
2011	6	4	35	13	52	21
2012	13	5	41	15	48	19
2013	15	5	35	14	50	20

Source: unpublished HILDA data. Populations: adult non-managerial full-time employees. Note: definitions of low paid as shown and based on usual weekly earnings.

Author's relevant expertise

I have been an applied labour market researcher for over 20 years. For 13 years I worked at Sydney University in the Australian Centre for Industrial Relations Research and Training (acirrt). For the last 8 years I have worked as a freelance researcher, specialising in labour market analysis.

Over this period of time I have published books and journal articles analysing the Australian labour market. I have also worked for three state governments (Victorian, NSW and Queensland) on the development of industrial relations workplace surveys. I have undertaken detailed analysed of the findings from these surveys. My research for the Victorian Industrial Relations Taskforce in 2000 was included in the final report of that Taskforce. All of these surveys, and the reports produced, have examined the earnings of employees in great detail. A full list of my publications is available on my website: `http://ianwatson.com.au/pubs.html`.

Since 2001 I have worked extensively with the Household Income and Labour Dynamics in Australia (HILDA) survey and published a number of articles based on these data. This data collection is a longitudinal study and one of the most comprehensive datasets yet developed in Australia. I have used the HILDA data at length in this current report.

Since 1999 I have been a member of the Australian Bureau of Statistics Labour Statistics Advisory group. I have an Honours Degree and a PhD from the Australian National University. I also hold a Diploma in Education, and a Masters Degree in Education, from the Canberra College of Advanced Education (now the University of Canberra).

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A profile of the retail labour market

Proposal for SDA

24 February 2015

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1. Proposal outline

1.1 Understanding of the requirements

The SDA has asked for a short report which examines the labour market situation of the retail workforce in the context of the four year review of the General Retail Industry Award (and several other retail awards). One of the key issues in that review concerns likely proposals to change Sunday penalty rates.

1.2 Tasks to be undertaken

The SDA requires useful statistical data and analysis on the retail workforce (a labour market profile), which looks at:

- the characteristics of the retail workforce, including demographics, casual status, student employment, workers with family responsibilities, and other relevant characteristics;
- the earnings situation of the retail workforce;
- the working time arrangements of the retail workforce, including weekend rostering arrangements.

Where feasible, changes in any of these characteristics over the last decade will be noted.

In addition, the SDA also requires data which looks at the household situation of retail workers (within the context of the 'needs of the low paid'). This will include issues related to cost of living (in particular, rent and energy costs) and the role that labour market earnings play in dealing with these pressures.

The report needs to contain both data and commentary, with the data presented in tables and figures, as appropriate. The analysis will be largely descriptive (in the statistical sense) and will draw upon the most recent data available. This includes unpublished statistical information drawn from:

- ABS Census data from 2006 and 2011;
- the Household, Income and Labour Dynamics in Australia survey (HILDA).

It will also include any published statistical material, such as special ABS surveys of the retail sector, the recent Australian Workplace Relations Survey (AWRS), and other sources as appropriate.

1.3 Outcomes

A written report suitable for presentation to the Fair Work Commission as evidence in a hearing.

Attendance at the Fair Work Commission to explain the findings (if this is required).

1.4 Time frame

The report will be written in the second half of April 2015 and provided to the SDA by the end of April.

1.5 Costs

The cost of the report (as outlined above) will be $10,000 plus GST.

2. Researcher details

I have been working as a Freelance Researcher since November 2006. Prior to that I worked for 13 years as a researcher at the Australian Centre for Industrial Relations Research and Training (acirrt), at the University of Sydney. I am registered as a sole trader with the ATO (ABN: 78 559 063 790) and hold Professional Indemnity Insurance with CGU Professional Risks. My website is: `www.ianwatson.com.au` and this contains a full list of research publications, as well as various unpublished research reports. I am also a visiting senior research fellow at Macquarie University and at the Social Policy Research Centre at the University of New South Wales. I have been a member of the ABS Labour Statistics Advisory Group since 1999.

I have prepated reports for various unions (including the SDA and United Voice) and have appeared before industrial relations tribunals as an expert witness over many years.

Expertise in data collection and analysis

I have been an applied labour market researcher for over 20 years. During the time that I worked at acirrt I worked with three state governments (Victorian, NSW and Queensland) on the development of industrial relations workplace surveys. With colleagues, I designed questionnaires, undertaken sample design and developed the data collection strategies.

During that period I also assisted the Premiers Department of NSW in the development of their workforce profile, a system for managing all of the data on the NSW public sector workforce. I was involved in the initial design of the system, and in subsequent improvements.

In my current role as a Freelance Researcher I have also undertaken large scale surveys for various clients, such as trade unions (United Voice) and government departments (NSW Family and Community Services and Queensland Department of Communities). These have used both paper-based and internet-based collection methods.

Since 2001 I have worked extensively with the Household Income and Labour Dynamics in Australia (HILDA) survey and published a number of articles based on these data. This data collection is a longitudinal study and one of the most comprehensive datasets yet developed in Australia.

In the late 1990s I worked with the Australian Workplace Industrial Relations Survey data (AWIRS), two survey datasets (1990 and 1995) which provided extensive investigation of workplaces in Australia. Over many years I have worked with the Australian Bureau of Statistics (ABS) Confidentialised Unit Record Files (CURFs). I have analysed a number of surveys relevant to workforce data, including surveys of training and education and household income surveys.

Expertise in labour market analysis

I have published numerous articles and reports looking at labour market issues, particularly around casualisation, unemployment and under employment, and wage inequality. Many of these articles are available on my website. I was also one of the authors of the two acirrt books, *Australia at Work* (1999) and *Fragmented Futures* (2003), which both analysed the labour market in great detail.

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Academic Background

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1982	M.Ed, CCAE Canberra
1978	Dip.Ed, CCAE Canberra
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25 March 2015

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BY EMAIL: mail@ianwatson.com.au

Dear Dr Watson,

Re Request for Expert Report

We act for the Shop Distributive and Allied Employees' Association (the **SDA**). The SDA seeks to engage you to prepare an expert report for use in the four yearly review of modern awards conducted by the Fair Work Commission pursuant to s 156 of the *Fair Work Act 2009 (Cth)* (the **review**).

As part of the review, the Fair Work Commission (**Commission**) is required to review all modern awards. The SDA has an interest in a number of modern awards including the *General Retail Industry Award 2010* (the **Retail Award**).

The SDA requests that you prepare an expert report for use in that part of the review relating to the provision made by the Retail Award in relation to penalty rates. In that part of the review, a number of employer associations have proposed that the Commission reduce the entitlements made by the Retail Award (and other awards) for employees to be paid penalty rates for work at certain times, such as on Sundays. The SDA opposes these applications.

The SDA requests that your expert report address the following questions and matters (setting out the reasons for each of your opinions as well as any factual findings or assumptions on which such opinions are based):

1. Describe the earnings situation of the national retail workforce.

2. By reference to relevant and identified criteria, to what extent, if any, is the national retail workforce low paid?

3. How does the:

   (a) proportion of low paid workers in the national retail industry compare to the proportion of low paid workers in other industries?

   (b) earnings situation of the national retail workforce compare to the earnings situation of the workforce in other industries?

4. To what extent, if any, has the earnings situation of the national retail workforce changed over time?

5. Describe the household situation of the national retail workforce by reference to relative living standards and the financial circumstances of households.

6. Outline the industries or sub-industries in which the national retail workforce, referred to in the above questions, is located.

Please address the above questions and matters by reference to the most recent available data. Please also include in your report details of your training, studies and experience. Should any of the above questions or matters fall outside your field of expertise, this should be stated in your report.

We request that you provide your written report to our office by 1 May 2015.

It is likely that you will be required to give oral evidence before the Commission in relation to your report. Hearings are scheduled to occur in the period from 8 – 25 September 2015. We will be in contact with you closer to that time to confirm the specific date upon which you will be required to attend at the Commission and to make arrangements for that attendance.

We also confirm our client's agreement to pay the costs associated with the preparation of the report and your attendance to give evidence at the Commission in the sum of $10,000 (plus GST). The SDA will also pay any reasonable disbursements incurred by you associated with attending to give evidence at the Commission, such as travel and accommodation costs.

Please contact the undersigned if you have any questions in relation to the above.

Yours sincerely,

AJ MACKEN & CO.