



A Strategy for Monitoring the Micro-Economic and Social Impacts of the Australian Fair Pay Commission

J Healy and S Richardson
National Institute of Labour Studies
25 June 2007

Report commissioned by the
Australian Fair Pay Commission, 2006

Research Report No. 4/07

ISBN 0 9802979 7 4

© Commonwealth of Australia 2006

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth. Requests and inquiries concerning reproduction and rights should be addressed to the Commonwealth Copyright Administration, Attorney General's Department, Robert Garran Offices, National Circuit, Barton ACT 2600 or posted at <http://www.ag.gov.au/cca>.

The contents of this paper are the responsibility of the authors and do not necessarily represent the views of the Australian Fair Pay Commission.



A Strategy for Monitoring the Micro-Economic and Social Impacts of the Australian Fair Pay Commission

J Healy and S Richardson
National Institute of Labour Studies
July 2007

Report commissioned by the Australian Fair Pay Commission, 2006

Contents

Executive summary	5
1 The basic elements	7
1.1 What to monitor	
1.2 Where to monitor	
2 The core strategy	11
2.1 Employment of the low-skilled	
2.2 Providing a safety net for the low paid	
Matrix A: Monitoring employment	
Matrix B: Monitoring the safety net	
3 Extending the monitoring	24
3.1 Evidence at the workplace	
3.2 Individual employment and earnings dynamics	
3.3 Holes in the safety net	
References	28
Appendix on data sources	30
ABS Labour Force Survey (LFS)	
Employee Earnings, Benefits and Trade Union Membership (EEBTUM)	
Labour Mobility	
Survey of Education and Work (SEW)	
Average Weekly Earnings (AWE)	
Consumer Price Index and Labour Price Index (CPI and LPI)	
Employee Earnings and Hours (EEH)	
Survey of Income and Housing (SIH)	
General Social Survey (GSS)	
List of tables	
Matrix A: Monitoring employment	20
Matrix B: Monitoring the safety net	22
List of figures	
Earnings distribution: cumulative frequency	16

Executive summary

This report outlines a strategy for monitoring the economic and social impact of wage setting decisions of the Australian Fair Pay Commission. It is intended to be read as a set of recommendations for monitoring the key effects of Commission decisions.

The monitoring project is important for several reasons. First, it is a key part of the information-gathering effort of the AFPC, and is intended to function as both an evaluation of past decisions, and an input to the Commission's thinking around the timing, value, and targeting of future adjustments. The monitoring is also important because it is new. Under previous wage-setting arrangements, there was no systematic mechanism within the AIRC for monitoring the impact of its safety net decisions. The first attempt at devising such a monitoring strategy must use incontrovertible data, and widely-accepted methods of analysis, if it is to be viewed as legitimate by the various parties invested in the outcomes of wage-setting decisions.

The approach recommended in this report is focused on the 'micro-economic' effects of Commission decisions. By this we mean the level of the individuals who receive low pay rates, the demographic and workforce groups in which such individuals are known to be over-represented, and the households in which these individuals reside. The basic alternatives to this approach are to monitor the effects of wage fixation at the aggregate, economy-wide, level, or to monitor at the workplace level. We argue that neither alternative can be preferred over an analysis focusing on the individual recipients of low pay, because the aggregate data are too far removed from the locus of Commission decisions, and robust workplace-level data are unavailable. The data on which our strategy is based are nationally representative, readily (and sometimes freely) available through the ABS, and relatively straightforward to interpret. Much of what we recommend draws on or extends earlier research. For reasons already noted, we do not think it appropriate for a new monitoring strategy to be too innovative, for fear that novel techniques or data might be criticised as inappropriate or biased toward particular results.

In thinking about what a monitoring strategy should contain, the wage-setting criteria under which the Commission acts are obviously relevant. However, while these offer a legislative framework for the exercise of the Commission's wage-setting powers, they are much harder to translate into parameters for a monitoring strategy. We see two key themes running through the Commission's concerns. First, there is a strong emphasis on 'competitiveness'. At the micro level, this is consistent with a high level of employment among groups such as the low-paid, the unemployed, and juniors. We have sought to simplify this dimension of the monitoring by referring to these groups collectively as the 'low-skilled'. The first priority for the monitoring work is thus to examine changes over time in the labour market standing of low-skilled individuals. The second component is the idea that Commission decisions should provide a safety net for the low-paid. Our approach treats this 'social' dimension as separate from the employment criterion. Indeed, there is likely to be some trade-off between the two.

The monitoring strategy is summarised in two reference matrices, which appear at the end of Section 2 of the report. Matrix A refers to the employment of the low-skilled, Matrix B to the safety net. These matrices are intended to be a quick reference source for the content of the monitoring strategy. Our method for monitoring employment of the low-skilled draws principally on monthly and quarterly data cubes from the ABS Labour Force Survey. It seeks to monitor changes in the employment, unemployment, and non-participation rates of individuals most affected by low pay rates, such as recent migrants from non-English-speaking countries, youths outside full-time study, and individuals working in industries and

occupations where the low-paid are known to be over-represented. Our basic method is to plot the probabilities that individuals in these groups are working in any month or quarter against the real value of the FMW, to pick up the timing of AFPC decisions. We further suggest the use of 'gross flows' data to detect changes at the margins of the labour market, and confidentialised unit record files to control for the individual attributes and to give a more detailed picture of the jobs typically obtained by those with low skills.

Our method for monitoring the safety net impact of AFPC decisions draws heavily on surveys of employee earnings and household incomes. We have suggested monitoring the *real* value of the FMW using the CPI, and the *relative* value using average weekly earnings. Neither of these is complicated, but both provide evidence of how low rates of pay are moving in comparison to measures of general living standards. In addition to looking at average earnings, it is recommended that the FMW be directly located in the distribution of earnings, both to get a sense of how many workers are affected by AFPC decisions, and how strongly the minimum 'bites'. Much discussion of low pay considers the broader social safety net, which includes government assistance to low income families in addition to what is earned in the labour market. Consistent with this view, we have suggested that the safety net monitoring also incorporate simple methods for determining where the low-paid are placed in the distribution of family and household disposable (and equivalent) incomes. However, we argue against the reliance on poverty lines or budget standards as the basis for evaluating the adequacy of regulated pay rates. Instead we recommended the periodic analysis of indicators of 'financial stress' among low-income households whose main income is from wages.

The final section of the main report is a discussion of the possible extensions to the basic monitoring work. These are intended to be add-ons to the basic strategy. The main deficiency of the existing data sources is the absence of good workplace data. We are encouraged by ABS intentions to improve its suite of information in this area, and highlight two sources of potentially useful information, the Business Longitudinal Database, and the prospective Linked Employer–Employee Database. Another useful extension would be an analysis of employment and earnings 'dynamics' using panel data from the HILDA survey. This could involve a range of more advanced modelling techniques which take the work closer to establishing direct cause and effect between Commission decisions and outcomes in the labour market. A final recommendation is that the Commission extend the monitoring by exploring why a non-trivial number of adults are paid under the FMW. Holes in the safety net undermine its function, since there is little reason to expect that individuals working for well below the wage floor are benefiting from increases in it.

To assist readers in tracing the various stages of the monitoring strategy outlined in the body of the report, we have provided an Appendix which discusses the strengths, weaknesses, and timing of the various data sources on which it is based. This can be read as a stand-alone section for those interested in the main sources of microdata.

1. The basic elements

This section answers two preliminary questions about the monitoring strategy under development:

- (1) *what* should a plan for 'monitoring' the impact of AFPC decisions actually attempt to monitor, and
- (2) *where* should such an effort be focused?

The legislative criteria facing the Commission are very broad in their scope, and it is not our intention to usurp the Commission's authority on their interpretation. For the purposes of designing a monitoring strategy, however, these criteria can be usefully distilled to two specific issues: the impact of AFPC decisions on the employment of low-skill individuals, and the extent to which the FMW and its associated pay-scales provide a safety net for the low-paid. These elements lend themselves strongly to an approach which concentrates on the 'micro' experience: that of the individuals who currently receive minimum rates of pay, or *would*, if they were in work. This micro approach is contrasted with two alternatives, in Section 1.2.

1.1 What to monitor

Minimum wage decisions conceivably affect a wide variety of economic and social outcomes. There are likely to be effects on individual incentives, the distribution of individual and household earnings, the performance of the low-wage labour market, the competitiveness of particular industries and regions, and, perhaps, the growth of the aggregate Australian economy. The inclusion of the whole range of conceivable effects would require a large and exceedingly complex monitoring effort.

The strategy developed in this report is more limited in scope. It is based on both an understanding of the Commission's wage-setting obligations, and an awareness that this is the first systematic attempt to monitor the effects of minimum-wage fixation since the notion of a safety net first developed alongside enterprise-level bargaining. No structured monitoring effort was undertaken during the period of the Australian Industrial Relations Commission's maintenance of the safety net, in part because of the particular arbitral responsibilities and budget circumstances under which the AIRC acted. We approach the design of a monitoring strategy cautiously, recognising that the procedures and data sources must be transparent and highly credible if they are to be accepted by the many parties interested in the outcomes of AFPC decisions.

The foremost of the requirements of the Commission is to 'promote the economic prosperity of the people of Australia'. This is a very broad responsibility, requiring the ongoing and collective judgment of the Commission members, and is not an adequate basis on which to design a monitoring strategy. Section 23 of the *Workplace Relations Act 1996* sets out more specific goals, requiring that the Commission take into account:

- (a) the capacity for the unemployed and low paid to obtain and remain in employment;
- (b) employment and competitiveness across the economy;
- (c) providing a safety net for the low paid;
- (d) providing minimum wages for junior employees, employees to whom training arrangements apply and employees with disabilities that ensure those employees are competitive in the labour market.

The concept of 'competitiveness' recurs throughout these four criteria. It is explicitly mentioned in (b) and (d), and is implicit in (a). The competitiveness of the Australian economy, in the aggregate, is very difficult to translate into a monitoring procedure (or indeed to understand). However, the notion of competitiveness for particular groups of workers or potential workers is more straightforward. The idea is consistent with a high level of employment of the target groups, and with regulated pay rates which do not inhibit the achievement of a high level of employment, but do encourage labour force participation. The Act makes specific reference to the unemployed, the low-paid, and several other groups: junior employees, employees with disabilities, and employees subject to training arrangements. These groups have in common the fact of their low skills. For some this is the product of inexperience in the labour market, for others it is the result of time out of paid work, immobility, or poor health. By 'skills' we mean more than just the possession or absence of formal education, although this clearly is a factor in why some individuals obtain and remain for long periods in low-wage jobs. The first component of the monitoring strategy, then, is to examine the link between wage-setting decisions of the AFPC, and the employment of low-skill individuals.

These effects can be monitored in two basic ways. The first is to estimate 'elasticities' of labour supply and demand in response to wage increases of given size, for the most affected groups. Several studies of this kind have been undertaken in Australia, with general agreement on the direction of the effects, but dispute about the magnitudes. The second is simply to monitor the outcomes of demand and supply forces, expressed as changes in the employment, unemployment, and labour force participation of individuals likely to be affected by Commission decisions. As an initial approach to monitoring AFPC decisions, we believe the second approach has greater merit. The data needed for this approach exist in accessible form, and the analyses are straightforward. These sorts of considerations are relevant, because the monitoring is likely to be controversial and contested. The Commission needs to be confident that the evidence it provides is of high quality, and is not susceptible to assertions of weak data or misguided analysis.

The second objective of the Commission's wage-setting and, as such, of the monitoring strategy, is the provision of a safety net for the low-paid. We view the safety net function as materially different from the employment function. The two refer to distinct obligations and require separate treatment in the monitoring strategy. Yet 'safety net' is not a precise term. In forming its own views, the Commission reflected on evidence about the balance of responsibilities between the wage and welfare systems for supporting low-income individuals and families (see Section 5 of the Reasons for Decision, pp92–98). The Commission considered data on the disposable incomes of families of different sizes and compositions, and with different levels of engagement with the labour market, as well as material indicating the effective marginal tax rates of these different families and their respective incentives to either seek employment or increase their existing hours of work. Its decision also grappled with the meaning of the safety net, usefully separating the concept into components of 'adequacy' (the absolute amount paid and living standard supported), 'equity' (the relative earnings of lower- and higher-paid employees), and 'incentive' (the marginal increase in income resulting from an increase in work hours). The Commission noted that in meeting the safety net requirement of the Act, it had 'been mindful of different definitions of low pay, the support provided to low-paid workers by the tax/transfer systems, and the fact that low-paid workers can be found in high as well as low-income households' (p98).

In our view, based on an appreciation of decisions made by both the Australian Fair Pay Commission, and its predecessor in this area, the Australian Industrial Relations Commission, there is a tendency for the meaning of the 'safety net' to be clouded by the

conflation of two related but separate concepts. The first is the degree to which minimum wage decisions impact on relative pay and the *earnings* distribution. The second is the relationship between wage fixation and the total income positions of low-paid individuals, families, or households. Discussion of the first kind is insulated from considerations about the interaction between wages and the tax-transfer system, because the analysis is limited to wage-earners and the differences between them. In the second instance, however, the wage-welfare nexus is critical, and may alter the conclusions reached. The Commission is well aware of this difference, and has been conscious of it in reporting the arguments from various submissions and the findings from original research. The monitoring of a wage system that is intended to function as a 'safety net' necessitates a distinction between the earnings and income concepts and effects. Monitoring both outcomes involves a more complex strategy, but both are relevant to an appreciation of how well the Commission's wages safety net performs.

1.2 Where to monitor

An important consideration in developing a plan to monitor the impact of minimum wage decisions is the level at which the various effects should be measured. There are essentially three different levels which could be used to monitor the employment and safety net impacts highlighted above. These are:

- (1) the aggregate or economy-wide level,
- (2) the workplace level, and
- (3) the level of individuals who get, or potentially could get, a wage rate set by the Commission.

Each level requires different data, and asks different questions of the data. The level at which it is most difficult to comprehend the effects of minimum wage decisions is the level of the aggregate economy. The problem here is not a deficiency of robust data. The ABS collects excellent and widely used data on employment and unemployment, productivity growth, and prices at the economy-wide level. Rather, the difficulty lies in establishing a firm connection between any changes in these series and decisions made about minimum wages. Because of the array of factors that impact on changes in employment, output, and prices, including international forces unconnected to the policy stance of the Australian government or its agencies, isolating the independent effect of a change in the minimum wage is very difficult. The central problem is that the 'signal' to be detected is weak, with its effects being easily overwhelmed by other stronger forces. Efforts to exclude the intervening effects of other variables require contestable assumptions about how the economy might have performed, if not for a change in minimum wages. Numerous attempts, in Australia and abroad, confirm the difficulties of such an approach (Burgess 2004, for Australia; and Nickell & Layard 1999, for the OECD). An important reason why the signal is weak is that the proportion of the workforce that is directly subject to changes in the FMW is small. While around 10 per cent of the adult employee workforce receives no more than the minimum wage, most of these appear to be getting less than the minimum. Until we understand better how this comes about, we cannot assume that a rise in the FMW will directly affect those who are paid below it. Only a few per cent of workers are paid at or very close to the minimum wage.

A second level at which minimum wage decisions might be usefully evaluated is workplaces, principally those workplaces that contain larger numbers of low-paid individuals. In contrast to the abundance of aggregate-level data, there is very little information currently available in Australia about the effects of minimum wage rises at the workplace level. This represents the main deficiency in the materials that the Commission

might draw upon to evaluate its decisions. The most recent national workplace survey was the Australian Workplace Industrial Relations Survey (AWIRS), conducted twice, in 1990 and 1995. For the purposes of monitoring wage setting decisions made in 2006 and later, however, the data provided by these surveys must be considered obsolete. Since 1995 there have of course been other important surveys collecting information about issues and changes at the workplace level. But the key ingredient for the present monitoring needs – the ability to link low-skill employees to the circumstances of the businesses in which they work – is absent. The ABS Survey of Employee Earnings and Hours draws on payroll records to estimate individual earnings, but is not designed to link the attributes of employers with those of their employees.

The third level at which the effects of minimum wage decisions could be measured is at the individual level, or among the *groups* of individuals most affected by minimum wage adjustment. Compared to the other two analytical levels, much is already known about the effects of minimum wage decisions at this level. It is generally noted, based on existing evidence, that minimum wage recipients live in families of varying means, but are over-represented in poorer households (Healy & Richardson 2006), that small but measurable reductions in employment of lower-skill individuals probably occur following upward adjustment of the minimum (Leigh 2003; Lewis 2006), and that low skilled individuals make decisions about labour market participation partly on the basis of the minimum wage, especially the gap between it and available social welfare benefits.

The existing data are, generally speaking, conducive to high-quality monitoring of the effects of minimum wage decisions at the individual level. ABS surveys, such as the Survey of Income and Housing (SIH), the Survey of Employee Earnings and Hours (EEH), and the Survey of Employee Earnings, Benefits and Trade Union Membership (EEBTUM) are useful in answering many questions about the individual effects of the minimum wage. SIH can be used to connect individual earnings to family incomes. EEH enables comparison between workers covered by different pay-setting methods. EEBTUM provides detailed information about the wages and other entitlements of a large sample of employees.

The monitoring strategy devised in this report is strongly built around the individual or 'target-group' level of analysis. We consider this a micro-economic approach. Our version of the micro analysis has two components. At the most detailed level, we are concerned with the experiences of *individuals* who are most affected by wage setting decisions, including their labour market status, earnings, family incomes, and so on. At a less detailed level, where individual records are not available, we are concerned with the experiences of those *groups* of persons to which minimum wage recipients typically belong. For example, we might be concerned with the experiences of young adults who are not in full-time education, or with migrants from non-English speaking backgrounds, or with individuals who have few formal qualifications. Each of these groups is known – from previous work done for the Commission – to include a high proportion of low-wage workers. The contours of the monitoring strategy will depend on the availability of data for observing affected individuals and the groups to which they belong. The key challenge is to synthesise the different resources into a coherent resource which informs future decisions of the Commission.

2. The core strategy

This section outlines a strategy for monitoring the employment and safety net impacts of AFPC decisions. It is a 'core' strategy in the sense that it focuses on these two key impacts, both central to the Commission's role and legislative powers, while treating other issues as extensions to the main strategy. Section 3 highlights a number of such extensions to the core strategy, which should be pursued only once the procedures for carrying out the core strategy are familiar and embedded in the monitoring process. We believe that it is best to do a sub-set of robust, straightforward analyses and get these right, before moving to more complex and potentially controversial evaluations.

The core monitoring strategy is summarised in two matrices. Matrix A outlines the steps required to monitor the impact of Commission decisions on employment of the low-skilled, while Matrix B deals with the impact on the safety net for the low-paid. Both matrices are arranged according to the frequency with which each piece of the strategy can be carried out, given the release timing of the required data. Some parts can be repeatedly monthly, others only annually or biennially. Each matrix indicates the frequency, data source involved, and the types of analysis to be performed. In all cases, the recommended analyses are illustrative, rather than exhaustive. We provide a guide to the most useful methods, not a definitive list of procedures. The matrices serve as a quick reference for conceptualising and working through the various parts of the core strategy. The text of the following sections provides accompanying detail about the two main elements of the strategy, and how each should be implemented.

The comments which follow, in sections 2.1 and 2.2, are elaborations on the contents of Matrices A and B. These comments are intended only to highlight important points and clarify more difficult components of the suggested analysis. A detailed discussion of the various data sources used in the monitoring appears in the Appendix.

2.1 Employment of the low-skilled

The principal sources for monitoring the employment impact of AFPC decisions are:

1. monthly 'data cubes' from the ABS Labour Force Survey (LFS), which allow labour force status to be disaggregated in ways that target groups of individuals most affected by AFPC decisions (see the Appendix for more information);
2. monthly gross flows data cubes, which provide an amplified view of changes in labour force status at the margins, among individuals in the affected groups;
3. quarterly LFS data cubes which provide additional details about employment of those in work, allowing the 'low-skilled' to be identified more precisely;
4. annual LFS CURF microdata, released along with supplementary information from the Labour Mobility and Education and Work surveys, in alternating years.

The key basis for monitoring the employment impact of Commission decisions is the evidence that low-skill individuals are over-represented in the pool of workers paid a low hourly wage. Those affected by wage-setting decisions have distinctive attributes relative to the rest of the workforce. They are more likely than others to be young and unmarried, living in outer regional areas, and to have few formal qualifications. When they find work, the low-paid are strongly over-represented in casual employment, and in certain industries and occupations. The unemployed, and some with low skills who are not currently looking for work, can also be counted among those most likely to be affected by AFPC decisions.

A 'staged' approach to the monitoring is needed because some of the attributes which identify individual skills are collected infrequently in representative surveys. Highest educational attainment, a key indicator of individual skills, is only collected annually. In order for the monitoring work to provide evidence of relevance to the wage-setting process, however, the data must be collected close to the actual timing of Commission decisions. There is a trade-off here between the level of detail required to identify the low skilled, who are the target group, and the frequency of evidence required to judge the impact of wage adjustments. Our approach is to overcome the infrequency of the data sources that enable the low skilled to be identified, by exploring more regularly the labour market experience of certain groups of individuals that we know from other work over-represent the low skilled. These groups become proxies for those who are most likely to be affected by Commission decisions. These group-level estimates are the only available source of frequent (e.g., monthly or quarterly) and high-quality data on employment, unemployment, and non-participation rates in the areas of the labour market where Commission decisions 'bite'.

The basic questions to be answered by the employment part of the monitoring strategy are:

- (1) how the low-skilled are distributed over the labour force status categories of employment (distinguishing full- and part-time), unemployment, and non-participation at any point in time, and
- (2) whether changes in this distribution are apparently related to the timing of AFPC decisions. In some cases, we are forced by the data to adopt a compromise position, which involves looking not at a labour force status distribution of individuals with key demographic traits, but rather at employment levels in certain areas of the labour market known to contain large numbers of low-paid workers.

The evidence involved here is indicative. We suggest a number of ways in which the Commission can monitor employment levels, and some of the qualitative features of employment, in areas of the labour market where its decisions are felt. None of what is proposed in Matrix A can claim to firmly establish a cause-and-effect relationship between actions taken by the Commission and employment changes 'on the ground'. We do not believe that an initial monitoring exercise, such as this one, need or can go so far. Causal conclusions cannot be reached without applying more sophisticated modelling techniques to (preferably) longitudinal data. This would be a fruitful direction to take in extensions to the core strategy (see Section 3.3). For now, we propose that the best first step is to establish the sensitivity of trends in the labour market for low-skill workers to Commission wage-setting decisions. The approach suggested in Matrix A will provide such evidence, subject to the limitations noted.

First, freely-available monthly data cubes from the ABS Labour Force Survey allow employment in a number of key groups to be identified and monitored regularly. These groups are defined by the demographic characteristics of their constituents, and we suggest that they include unmarried individuals living in non-metropolitan areas, 20–24 year olds who are not enrolled in full-time study, recent migrants from non-English speaking backgrounds, lone parents, and non-dependent children. The data cubes containing information on each of these groups are shown in Matrix A. Each can be readily downloaded from the ABS website, following the links to catalogue number 6291.0.55.001. The Super Table program (also freely available) must be downloaded to read the data cubes.

The relevant data cubes can be manipulated to show estimates of the absolute number of individuals who are employed full-time, employed part-time, unemployed, and not in the labour force, in each of the groups of interest, in each month. The basic method for determining the relationship with wage-setting decisions is to plot these estimates against the real value of the Federal Minimum Wage (FMW) for every month, to develop a time series. A simple time series regression could also be estimated, to give an alternative presentation of the data. Such a regression could control for other major influences on the labour force status of the target groups (provided the data are available monthly). In addition to the *number* employed, the employment *rate* should be calculated, for each group, as a proportion of total adult employment (i.e., among persons aged 20–64 years), and also as a share of all individuals in the specific reference group. For instance, it is relevant to know what proportion of 20–24-year-old non-students are employed part-time, and what proportion of total adult employment these workers represent. Again, these rates can be plotted against the real value of the FMW, to pick up the timing of AFPC decisions.

The essential idea is that the real value of the FMW changes every month with the rise in prices – measured every quarter by the rise in the CPI – and again when a decision of the Commission is implemented. If the real value of the FMW has an effect on the employment or non-employment of the low skilled, this should be identifiable over time by plotting (graphically or through regression) the relation of one against the other.

Where possible, the employment and non-employment levels should be disaggregated by sex. In some cases, we suggest that the data be further disaggregated by age, if this is available on the data cube, to distinguish the experiences of young (20–24 year old), prime-age (25–54), and mature-age (55–64 year old) individuals. We warn, however, that too much disaggregation of the data can jeopardise the reliability of the estimates, as standard errors become unacceptably high. This problem can emerge without being noticed by the data cube user. In general, we advise against including more than three cross-tabulated variables in any one data cube presentation. For example, to obtain the estimated employment rate for single men in non-metropolitan areas, three variables (sex, marital status, and capital city/balance of state) must be cross-tabulated in the one data cube. To further disaggregate the data, for instance by including age in the tabulation, would severely reduce the number of observations in any one cell of the table, perhaps to a point where the estimates based on these cells are unreliable. This is an inherent limitation of sample surveys, even a large survey such as the LFS. The selection of three as the limit on the number of variables that can be simultaneously cross-tabulated is somewhat arbitrary, but it provides a useful rule of thumb for this sort of analytical work. A common practice in analysis of monthly data is to smooth out some of the ‘noise’ or variability in the estimates by constructing averages over a longer period, such as a quarter, to avoid imparting too much significance to possibly random variation (derived from sampling error) in the estimates from month to month.

The second step in monitoring employment is to keep track of the monthly flows into and out of the major labour force status categories. The gross flows data capture some of the dynamism at the margins of the labour market, by measuring transitions, rather than focusing only on the ‘stock’ of employment and non-employment in each month. It therefore provides a much more sensitive indicator of the changes at work. At present the ABS releases only one gross flows data cube. This allows the estimates to be disaggregated three ways: by sex, state, and age. We have suggested in Matrix A that the information on this data cube be used to monitor inflows to and from both full- and part-time employment, in several ways. Since Commission decisions affect both the demand for and supply of labour in the low-wage labour market, the monitoring should reflect potential flows in both directions. Therefore it should determine what proportion

of unemployed individuals in Month 1 were still unemployed in Month 2, what proportion had moved to full- or part-time employment, and what proportion left the labour force. This is just one of several examples given in Matrix A. In all cases, it is recommended that the data be disaggregated by sex. Further disaggregation, by age or by state, might be useful, for instance to get an idea of transitions for young adults, or to juxtapose the average experiences of individuals in high- and low-growth states (e.g., Western Australia and Queensland versus South Australia and Tasmania).

In all cases, the gross flows monitoring is checking whether the transition patterns in the months of wage-setting decisions are noticeably different from other months. The relationship could be made more explicit, by plotting the transition probabilities from the data cube against the real value of the FMW, as suggested earlier. Another option available to the Commission is to order specifically tailored gross flows information, to show variables other than the age–sex–state disaggregation already freely available. Candidates for inclusion in such a data request include country of birth, year of arrival in Australia, and education attendance for persons under 25 years. The benefits and costs of ordering special data from the ABS are further discussed in comments on the ABS Labour Force Survey, in the Appendix.

The third step in the monitoring the employment impact of Commission decisions is to analyse the *quarterly* Labour Force Survey data cubes. These differ from monthly data cubes principally in the collection of industry and occupation details from those in work. However, the focus of the quarterly cubes is also narrower in some respects than the monthly cubes, as the information relates primarily to those in work, rather than the distribution of individuals across the different labour force status categories. Other features of the quarterly data cubes are the 'status in employment' information, which allows employees to be distinguished from the self-employed (who are exempt from the FMW), and ability to disaggregate industry and occupation to highly detailed levels. In effect the quarterly data cubes provide an alternative set of 'proxies' for low skills, with job-related information being added to monthly demographic details.

The main usage of the quarterly data cubes is to describe the full- and part-time rates of employment for workers in segments of the workforce with above-average reliance on rates of pay fixed by the Commission. This is essentially the same method as was suggested for the analysis of the monthly data. Again, we think it would be useful for the employment levels and rates in the areas of interest to be plotted over time against the real value of the FMW. Where possible, the data should be set up so as to exclude the self-employed from the results. The analysis should also distinguish between the sexes, and perhaps age groups, where this can be done without adversely affecting the quality of the estimates. At a minimum, the analysis should examine how the rates of full and part-time employment are evolving in key low-pay industries, such as retail, hospitality, and community services, and in occupations at the lower-end of the skill hierarchy, such as in intermediate and elementary sales work, and in labouring. We have also suggested that the average hours worked by part-time workers be described, to explore whether changes in employment are manifest in the volume of work, rather than in the number of persons employed. The reference details for the data cubes used in such an analysis are given in Matrix A. These are accessible from the ABS website: catalogue number 6291.0.55.003.

Finally, we have suggested that the employment monitoring should make use of some of the CURF¹ microdata available from two LFS supplements: Labour Mobility, which is conducted biennially in February of even-numbered years, and Education and Work,

¹ CURF – Confidentialised Unit Record File, where detailed information is provided, anonymously, for each individual in the sample. These files can be used for econometric analysis.

which is conducted annually in May, but from which microdata is released biennially, in odd-numbered years. These two sources include the key variable of individual formal qualifications, thus greatly improving the ability to identify the low-skilled. The microdata are accessed either on CD, or via the Remote Access Data Laboratory (RADL), a secure area of the ABS website. For reasons elaborated in the Appendix, we believe that the initial costs to obtain access to the CURF microdata are justified by the additional flexibility and precision they offer in carrying out the employment monitoring.

Matrix A provides comments on the sorts of analysis which the microdata permit over what can be done with data cubes. An immediate benefit is access to the full range of survey variables, meaning the analysis is no longer restricted to what the ABS offers on a single data cube. The monitoring should look particularly at how the labour force status of working-age adults with few formal qualifications evolves over time, relative to timing of Commission decisions. The qualifications data should be combined with individual demographic information (e.g., sex, age, marital status) to better target the low-skilled, and to control for other influences on employment outcomes.

As well as looking at changes in full- and part-time employment rates, the microdata offer some opportunities to examine the *quality* of work obtained by the lower-skilled. One example is the information on paid leave entitlements provided on the Labour Mobility CURF. Such information is often used by researchers as a proxy for casualisation. Another example is the information on hours worked and job tenure, which may be seen as measures of employment precariousness and work attachment.

A more sophisticated use of the microdata is to build cross-sectional models of labour force status for individuals with certain attributes. This could be done as often as the microdata are released, using regression techniques. The models could determine, for instance, the probability that a man in his 40s, who has not studied beyond Year 12, holds a full-time job. In this case, a dependent indicator variable, taking the value 1 for respondents working full-time, and 0 otherwise, is regressed on a set of predictors that includes sex, age, and qualifications. The regression reveals the marginal change in the probability of full-time employment for individuals of different ages, sex, and educational attainment. This approach would provide the Commission with a detailed impression, roughly annually, of whether the employment prospects of individuals it is primarily concerned with have deteriorated or improved. Earlier releases of the microdata, for August 2004 and 2006, could be treated as the 'pre-reform' position, with the potential impact of Commission decisions being assessed according to how the observed probabilities of employment and non-employment have since changed.

2.2 Providing a safety net for the low-paid

The strategy we recommend for monitoring the safety net impact of AFPC decisions has five components:

1. Compare the FMW against quarterly measures of prices and average weekly ordinary-time earnings, using CPI and AWE.

These comparisons offer simple methods for determining whether the real and relative values of the FMW improve or deteriorate over time. A rising real value implies that the purchasing power of the minimum has increased, allowing its recipients to buy more of the basic goods and services which sustain a decent living standard. On the other hand, real incomes may be rising much faster for other workers than for those earning the minimum wage. This effect is picked up by the comparison with average weekly earnings, which

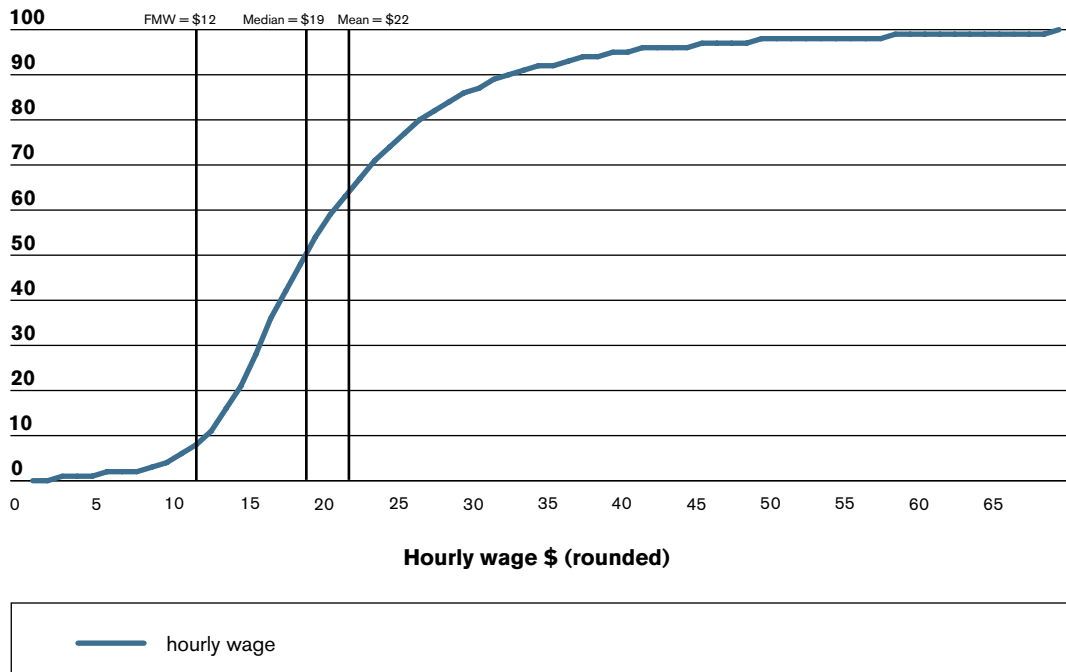
provide a barometer of general living standards obtained by those in work. Indices of labour costs (e.g., the Labour Price Index) are not suitable for this particular comparison, because they measure the cost of labour inputs, not average remuneration. The measure recommended in Matrix B is average weekly earnings of full-time, adult, non-managerial workers, disaggregated by sex. This estimate is reported quarterly in the AWE publication (ABS catalogue no. 6302.0).

- Determine where the FMW and other pay-scales are located in the distribution of full-time adult earnings, using the annual EEBTUM data.

As well as looking at the relative value of the FMW compared to *average* earnings, it is helpful to consider where Commission pay scales sit in the earnings *distribution*. A number of data sources exist for producing such a distribution; we have recommended EEBTUM principally because it is available more frequently than EEH and SIH. The FMW can be calculated as a proportion of other key points in the distribution, such as the first, second, third, and fourth deciles. Another similar method involves depicting the FMW on a cumulative earnings distribution, as shown in the figure below. Such a diagram illustrates the 'bite' of the FMW (and the number of adults ostensibly paid at rates below the federal wage floor). The weekly earnings distributions should exclude juniors and, if possible, the self-employed. Separate distributions should be produced for adult men and women. If hourly earnings can be calculated, these will provide an alternative presentation of the data, and include part-time workers.

Earnings distribution: cumulative frequency

Percentage of employed adults



Source: SIH 2003-04 Basic CURF.

- Calculate the relative value of non-managerial earnings at major points of the earnings distribution for employees whose pay is set by different methods, and relate these points to the FMW and other pay-scales, using the biennial EEH.

Payroll data from the EEH offer an alternative source of information on the earnings distribution among non-managerial employees. One feature is the ability to separate employees by the method of setting their pay. Historically, the employees affected by safety net decisions have been those paid by 'award-only'. It is highly likely that this remains the case, although coverage of the federal system is now much broader than was earlier the case. Using EEH, a detailed earnings distribution could be produced for workers covered by pay-scales, and compared to the distribution for employees whose pay is set by collective or individual agreement. In addition, average hourly earnings for employees in the same industries, but covered by different pay-setting regimes, could be compared. A limitation of EEH is that, unlike EEBTUM and SIH, there is no CURF microdata available, so requests for tailored data must be directed through the ABS special data service.

4. Repeat earlier analysis of the position of low-paid workers in the distribution of equivalent household disposable income, using the biennial SIH microdata.

We recommend that the monitoring make use of the biennial SIH microdata to check the position of low-paid workers in the distribution of household incomes. A strategy for doing so, essentially repeating earlier research by Healy & Richardson (2006), is summarised in Matrix B. This involves calculating an individual hourly rate of pay for those in work, plotting a distribution of equivalent household incomes for those of working age, and showing where the 'low-paid' (by reference to their hourly rates of pay) are situated in that distribution. This strategy moves the analysis beyond the pay distribution to broader considerations of poverty, in the context of government tax and transfer arrangements. It is important that the household incomes analysis be repeated whenever the data become available, to ensure that the Commission's understanding of the social positions of the low-paid are attuned to their actual living standards.

5. Every four years, monitor the proportion of wage-reliant, low-income families reporting one or more indicators of 'financial stress', using the General Social Survey (GSS).

One measure of the extent to which low-income families experience hardship is their exposure to instances of 'financial stress'. This includes self-reported events such as the inability to heat one's home, or going without a meal, or having to pawn personal possessions, due to a lack of money. Households with multiple such experiences are said to face financial distress. The GSS, conducted every four years, provides an insight on these experiences. The data should be tailored in such a way as to focus on households whose primary income source is wages and salaries, excluding retirees, and whose income is within the bottom deciles of an equivalent distribution.

The above comments provide a summary of the strategy for monitoring the safety net. These steps are explained in more detail in Matrix B, and the relevant data sources are discussed more fully in the Appendix.

Our approach has not, of course, exhausted the range of options for monitoring the safety net. Another approach to monitoring the adequacy of the FMW is to compare its value with some absolute measure of need. The two main candidates for such a measure are: a) a poverty line and b) a budget standard. It would be reasonably straightforward to compare movements in the FMW with movements in the value of each of these comparators. It is probably worthwhile to do so, to expand the picture of where the FMW lies in the various measures of low standards of living. But we caution against using either a poverty line or a budget standard as the basis on which to judge the adequacy of the FMW, for reasons set out briefly below.

2.2.1 Poverty line

There is a substantial literature on the meaning and measurement of poverty. A poverty line has a role to play in such measurement, but mainly because of its pedagogical virtue of simplicity. It is understandably helpful to have a level of income (adjusted for family size and composition) below which a person can be deemed to be poor and above which they are deemed not to be poor. But in practice it is not possible to identify such a line, in a way that properly reflects the reality of poverty. Here is not the place for a full discussion of the limitations of poverty lines. But we point to some of the main issues, to explain our position.

- Poverty is not a threshold event: in the broad sense, people with less money are poorer than people with more money, but there is no level of (equivalent, disposable) income below which people clearly have an unacceptable standard of living, and above which they do not.
- In a rich country such as Australia, poverty mostly does not mean not having enough of the material basics of life (food, shelter, clothes). Rather, it means not having enough to 'live decently', or to participate in normal community life. These latter concepts are much less precise than a survival basket of purchases and any poverty line will therefore be contentious. Exactly how much do people need to live decently? What exactly does 'live decently' mean? Even if we have a shared understanding of what it means, this does not translate directly into a dollar income necessary to attain it.
- The income necessary to participate in ordinary community life rises over time, as Australia becomes richer on average. Should the real value of the poverty line also rise over time? If so, by how much – real GDP per capita? Average real earnings? The real income of the 30th or 40th percentile of the distribution of equivalent disposable income?
- How should the value of government-provided goods and services, such as education, safety, transport, health, be taken into account?
- Material standard of living is affected by assets as well as income. People can have an adequate standard of living and a low income, if they own their own house without debt, have it well furnished with reliable appliances and have a reliable car. This describes many retired people.
- There is a bunching of income at the level of the main social welfare payments. If the poverty line is set below this level, then all who are on these benefits are deemed not to be poor. If it is set just above this level, they are instead deemed to be poor. This matters, because the location of the poverty line has an arbitrary component.
- Even the apparently technical matter of constructing a formula by which to convert the income of differently composed families into an 'equivalent' income is contentious, and affects both the number and the characteristics of who are poor.

Finally, people who are employed are expected to, and do, have a higher standard of living than people who have no or little private income. It will be a matter of debate as to how much above any poverty line the FMW should be set.

2.2.2 Budget standards

A sophisticated way in which to identify the standard of living that is made possible by different levels of equivalent disposable income is to find out what those incomes can buy. Put another way, to identify what is a minimum adequate income, one strategy is to identify what people need to be able to buy, then work out how much that bundle of purchases would cost. This approach is known as 'budget standards'. They can be set for a just-adequate standard of living, for a level of 'frugal comfort' or for a more generous level of comfort. This approach has a long history in Australia, and was a key component of Justice Higgins' approach to setting the level of Australia's first basic wage in 1907. He had to rely on informal means of finding out what workers needed to live in frugal comfort (quizzing housewives, real estate agents, butchers and so on). Today we have much more comprehensive measures of typical household expenditure. In the late 1990s, the Social Policy Research Centre at the University of NSW was commissioned to develop a comprehensive and detailed set of budget standards, for families of different types and for selected levels of material comfort. They did this with great professionalism. But even the best of such standards confront formidable problems. Judgements have to be made at every turn about what people should reasonably be able to purchase. In the case of Higgins and the later Piddington Inquiry of 1919, they had to decide how many pairs of gloves, stockings and petticoats a woman needed; how much a man should be able to spend on tobacco. In the modern example, the researchers had to decide how often an elderly person should be able to replace their false teeth; how many condoms a young person should be able to buy, and so on. The requirement to make this level and detail of judgement obviously exposes any resulting budget standard to dispute over whether the right calls have been made. In addition, it is a feature of the budget standard approach that it produces levels of necessary income that are larger than many families in fact manage on. Indeed, the Piddington Inquiry determined a modest level of expenditure for the working man that, if applied to the entire workforce, would have more than exhausted the entire national income (see Hancock 1998, pp44–5).

Saunders (2006) contends that despite the number of judgements that need to be made about the composition of the budget basket and the composition of the standard family, there is a remarkable similarity between the Piddington budget standard of 1919 and the SPRC 'modest but adequate' standard of 1999. He reaches this conclusion by increasing the Piddington amount by the growth in nominal GDP per head. While the fact that these two standards, adjusted in this way, are indeed so close is indeed remarkable, it suggests that the best way to judge the adequacy of the safety net provided by the FMW is to compare it over time with some measure of average living standards, such as GDP per head or average weekly earnings. This is what we recommend.

For these reasons, we do not think that either a poverty line or a budget standard provides a robust basis on which to evaluate the adequacy of the FMW in providing a safety net for Australian workers. But they do provide context and comparison, and could well be included in the suite of material, along with the real value of the FMW, that is provided as a basis for monitoring the impact of the Commission's decisions.

Matrix A: Monitoring employment

Frequency	Data source	Illustrative analysis
Monthly	ABS Labour Force Survey data cubes: LM1 LM3 LM7 FM1 GM1	<p>This stage seeks to understand the labour force status of individuals in the groups most affected by AFPC decisions. Since such <i>individuals</i> cannot be targeted, use <i>groups</i> with a high concentration of low-skilled:</p> <ul style="list-style-type: none"> • Proxy 1: Unmarried individuals who live in non-metro areas, by age groups (data cube LM1) • Proxy 2: 20–24-year-olds who are not in full-time education, by sex (LM3) • Proxy 3: Migrants from non-English-speaking backgrounds, by sex and year of arrival (LM7) • Proxy 4: Lone parents and non-dependent children (FM1) <p>For each of the above groups, calculate the following:</p> <ul style="list-style-type: none"> • Absolute numbers employed full-time, employed part-time, unemployed, and not in labour force • Numbers employed FT and PT, as a proportion of all individuals in the same demographic group • Numbers employed FT and PT, as a proportion of all individuals aged 20–64 with same LF status <p>Plot the results over time against the real value of the FMW, to pick up the timing of AFPC decisions. Alternatively, or as well, construct a time series regression, with employment of the relevant group as the dependent variable, and the real value of the FMW as one of the independent variables.</p> <hr/> <p>A second key usage of the monthly Labour Force Survey data cubes is to monitor the gross flows between different types of labour force status for individuals in the target groups, from month to month. The aim is to determine whether transitions between labour force states are noticeably different in the months where minimum wage adjustments occur, from the months where they do not. This analysis is expressly focused on the margins of the labour market, where individuals move between employment and non-employment. The flows data give an amplified view of change, compared with looking at the total stock of employment. We recommend the following analyses of the gross flows data. In any month, calculate:</p> <ul style="list-style-type: none"> • inflows from unemployment to employment (FT and PT), and from NILF to employment, by sex • inflows from employment to unemployment and NILF, by sex • inflows to employment from NILF, disaggregating by age (20–24, and other) • inflows to employment from NILF, disaggregating by state (to distinguish high-growth and others) <p>Again the simplest way to pick up the timing of Commission decisions is to plot the results of the analyses above against the real value of the FMW over time. Other gross flows data could be requested from ABS.</p>

**A Strategy for Monitoring the Micro-Economic and Social Impacts
of the Australian Fair Pay Commission**

Quarterly	ABS Labour Force Survey data cubes: E05 E07 E09	<p>The quarterly data cubes are focused just on the employed. The key additional details provided in the quarterly data cubes are the industries and occupations of employment for those in work. On some of the data cubes, this information is provided at quite a high level of disaggregation; this is important for monitoring, because the low-paid are known to be over-represented in a number of key industries and occupations. The better we are able to isolate these, the more precise the monitoring work can be. A number of the quarterly data cubes also include a variable for status in employment, which allows the self-employed, who are exempt from the FMW, to be excluded.</p> <p>The recommended analyses are:</p> <ul style="list-style-type: none">• Full- and part-time employment by industry, excluding non-employees, focusing on key industries such as accommodation, cafés and restaurants, retail trade, and community services. Do same by sex and age, concentrating on 20–24-year-old employees (data cube E05).• Full- and part-time employment by occupation, excluding non-employees, focusing on occupations with relatively high proportions of low-skill workers, such as intermediate and elementary service and sales positions, and labourers. Again do by sex and age, concentrating on 20–24 years (E07).• Full- and part-time employment by industry <i>and</i> occupation (but without the ability to exclude non-employees), again focusing on those categories of employment with above-average concentrations of low-skill workers: e.g., elementary occupations within service industries. Split by sex (E09).• Average hours worked, disaggregated by sex and broad age group, by part-time employees in low-skill industries and low-skill occupations (E05 and E07). This checks whether an employment effect of AFPC decisions is reflected by a change in the hours worked by existing employees, rather than by a change in the number of persons employed. <p>Use each of the above data cubes to calculate:</p> <ul style="list-style-type: none">• absolute numbers employed full-time and part-time• numbers employed FT and PT, as a proportion of total employment• numbers employed FT and PT, as a proportion of total employed in each demographic (e.g., sex) <p>Each quarter, the absolute numbers and proportions should be plotted against the real value of the FMW in that quarter, to pick up the timing of AFPC wage-setting decisions.</p>
-----------	---	---

**A Strategy for Monitoring the Micro-Economic and Social Impacts
of the Australian Fair Pay Commission**

Annually	<p>ABS Labour Force Survey microdata:</p> <ul style="list-style-type: none"> • Labour Mobility • Education and Work 	<p>The key ingredient missing from the above data cubes analysis is information on personal qualifications. In many respects, this is the defining characteristic of 'low-skill'. If qualifications are directly observable, the need to proxy low skills using the groups identified above becomes unnecessary. Earlier research done for the Commission has clearly shown the over-representation of individuals with few formal qualifications in the pool of FMW recipients. Nearly 60 per cent of FMW workers have not studied beyond high school.</p> <p>In alternating years, the ABS releases CURF microdata from two LFS supplements: Labour Mobility, and Education and Work. Both these data sources contain individual-level observations of highest educational attainment and labour force status. The Labour Mobility data are collected biennially in February of even-numbered years, and released in CURF format in approximately November of that year. The Education and Work data are collected annually in May, but are released only biennially in CURF format, with respect to May of every odd-numbered year. We recommend that these two microdata sources be used to do the following:</p> <ul style="list-style-type: none"> • Describe the distribution of low-skilled individuals across the main labour force states, in greater detail than is possible with the LFS data cubes. For instance, what proportion of unmarried males living in non-metro areas, and who have not studied beyond Year 12, are employed, unemployed, and not in the labour force. This can be done in respect of February 2006, 2008, etc., using Labour Mobility data; and in respect of May 2003, 2005, etc., using Education and Work. • As before, the timing of Commission wage-setting decisions could be represented by plotting the employment results against the real value of the FMW in the period that the data were collected. • In some cases it will be possible to describe the employment obtained by low-skilled individuals in greater detail than just employed full-time/part-time or unemployed. For instance, Labour Mobility has a variable about whether employees were entitled to paid leave, which could be used as a proxy for casualisation. There is also a question about tenure with current business which could serve as a proxy for employment precariousness. Such measures are useful for monitoring the <i>quality</i> of work obtained by the low-skilled, not just its quantity. • A more sophisticated use of the CURF microdata is to model the probability that an individual with certain characteristics will have a particular labour force status, such as full-time employment. This is done with regression methods, where the dependent variable is an indicator ('dummy') capturing labour force status, and individual characteristics, such as qualifications, sex, and age, are included as the model predictors. The model coefficients should be plotted against the real FMW over time.
----------	---	---

Matrix B: Monitoring the safety net

Frequency	Data Source	Illustrative Analysis
Quarterly	Consumer Price Index	<p>One way of monitoring whether the FMW and associated pay-scales are providing a safety net for the low-paid is to calculate the real value of these pay rates over time. This is done quarterly, against the CPI. The purchasing power of the FMW is a function of its real value. It is also relevant to ask how much other rates of pay outside the Commission's control have been increasing in real terms. This offers one measure of the change in material living standards for the low-paid, compared to changes in the broader community.</p>
	Average Weekly Earnings	<p>Another way of evaluating the safety net is to calculate the proportion of average weekly earnings that the FMW represents. This checks the FMW against a measure of average remuneration for workers. The ABS Labour Price Index is not suited to this purpose, as it measures change in labour costs, not typical earnings. The preferable comparator is average weekly ordinary-time earnings (AWOTE) for full-time adult, non-managerial workers. This measure of AWOTE should be disaggregated by sex before comparing to FMW.</p>

**A Strategy for Monitoring the Micro-Economic and Social Impacts
of the Australian Fair Pay Commission**

Annually	Employee Earnings Benefits and Trade Union Membership	<p>While <i>average</i> earnings provide one indicator of the relative value of the FMW, they abstract from the full spectrum of earnings. Another way of assessing relativities is to ask where the FMW and other pay scales are positioned in the broader <i>distribution</i> of earnings. EEBTUM is preferred to the other data sources that could be used for this purpose (EEH and SIH) because it is conducted annually, and distinguishes the self-employed from other employees. However, the EEBTUM microdata are only released biennially. Thus, to access the annual data, a special request must be made to the ABS. This tailored data request would show the following:</p> <ul style="list-style-type: none"> • The distribution of weekly earnings among full-time employees, disaggregated by sex. It would be sufficient for the present purpose for the distribution to be divided into ten equal segments (deciles) rather than percentiles. The FMW would then be calculated as a proportion of the lower deciles, i.e., P10, 20, 30, 40, 50. The distribution should exclude owner-managers. • Optionally, the production of an earnings distribution using the EEBTUM could be conducted biennially, using the CURF microdata. This avoids the cost of ordering tailored data from the ABS, but gives a less regular impression of the relative placement of the lowest-paid. The Commission should explore the possibilities of the ABS Remote Access Data Laboratory (RADL) which allows detailed CURF data to be interrogated via a secure web link, including continuous weekly earnings.
Biennially	Employee Earnings and Hours	<p>The EEH data are highly reliable, being collected from a large random sample of employer payroll records, and enable the differentiation of employees whose pay is fixed by different methods (historically, by award or by collective or individual bargain). The detail and complexity of the survey are reflected in its irregular collection, and the lack of CURF microdata. The following analyses should be carried out:</p> <ul style="list-style-type: none"> • Compare FMW and other pay-scales with the earnings deciles for full-time, adult, non-managerial employees, by sex, from the EEH publication (ABS catalogue no. 6306.0). This repeats the earlier EEBTUM relativities comparison, with more authoritative (but less frequently collected) pay data. • Order from the ABS a detailed percentile breakdown of the full-time earnings distribution, by sex, within each of the main methods of setting pay categories. Use these data to: (1) determine how the earnings of pay-scale reliant employees at key points of the distribution compare with employees at the same points of the collective and individual bargaining distributions; (2) locate FMW and major pay-scales in the distribution of full-time earnings for workers whose pay is set by bargaining; and (3) construct a cumulative earnings distribution, such as that shown in Section 2.2, showing where the main rates of pay fixed by the Commission sit in relation to the rest of the earnings distribution.
	Survey of Income and Housing	<p>SIH microdata should be used biennially to update the existing profile of where FMW workers are located in the distribution of equivalent household disposable income. Earlier NILS analysis (Healy & Richardson 2006) provides a method for doing this, which could be replicated. Another comparable approach is given by Leigh (2005). The basic method for carrying out the analysis is as follows:</p> <ul style="list-style-type: none"> • Use the person-level data to impute hourly earnings from weekly earnings and working hours, and use this variable to isolate the low-paid. This allows part-time workers to be included in the study. • Use the household-level data to plot a distribution of size-adjusted (equivalent) disposable incomes, perhaps deleting households where no member of the household is of working age. • Produce a graph showing what proportion of the low-paid workers are in each of the deciles of the resulting household income distribution. Plot unemployed individuals on the same graph. • Optionally, use the household income data to further describe the sources and values of income that are received by low-paid individuals, and their households, aside from their labour market earnings.
Four-yearly	General Social Survey	<p>A final question to be answered by the safety net analysis is how the incidence of 'financial stress' changes over time for low-income households whose primary source of income is wages. GSS data can be analysed to estimate how many wage-reliant, low-income households face 1, 2, 3 or more kinds of financial stress.</p>

3. Extending the monitoring

This section discusses three additional avenues of inquiry which should be pursued in future monitoring work, once the methods necessary to complete the core strategy are familiar and embedded in the monitoring processes. First, the AFPC Secretariat could explore the potential usage of workplace-level data to extend the monitoring strategy. In Section 3.1 we highlight two emerging ABS data sources which are relevant for the purpose, and which may reduce or eliminate the need for the Commission to conduct a separate workplace survey. Second, the monitoring should be extended to include an analysis of longitudinal data from the HILDA survey. Such work will help reveal the dynamics of employment and earnings for low-skilled individuals, improving on the cross-sectional analyses used in the core strategy. Third, an effort should be directed toward explaining why some adult workers appear to be paid below the hourly FMW. Section 3.3 summarises some of the competing explanations and suggests how such an investigation might proceed.

3.1 Evidence at the workplace

The single measure which would most significantly advance the Commission's sense of its employment and economic impact would be the provision of high quality data at the workplace level. To be useful for monitoring the impact of AFPC decisions, such data would need to allow the identification of businesses that operate in the low-wage labour market or employ a large number of workers on rates of pay close to the FMW.

The Australian Workplace Industrial Relations Survey (AWIRS) conducted twice, in 1990 and 1995, provided such information, along with a host of other information on firm-level activity, work organisation, and industrial relations practice. Since then the AWIRS has not been repeated, and the 1995 data are too dated to be of contemporary use in monitoring AFPC decisions. The ABS has an array of regular business surveys, some of which are reviewed in the data appendix. For the present purposes, the best of these is the EEH, which has information about both employer characteristics (industry of activity, number of employees), and about individual employees (method of setting pay, hourly earnings, occupation, sex, and full-time/part-time status). However, EEH is not specifically designed to relate changes in the competitive environment of firms to the labour market success of individuals with few formal skills. EEH provides only limited information about the employing business, is relatively infrequent (biennial), and does not ask the types of questions required to understand the responses of low-wage employers to changes in labour costs mandated by AFPC decisions.

For these reasons, we see merit in encouraging the collection of new workplace data. There are essentially three ways in which new workplace evidence could be collected. First, a sample of firms could be asked to anticipate how they would react to a certain change in their operating environment. For present purposes, such a survey might ask about the likely response to an increase in the real FMW of a given amount, perhaps over several years. This is the methodology that has been used by several prior surveys, including those conducted by industry associations, and at least one conducted under the auspices of the Commonwealth government, for submission in support of claims made before the safety net review cases of the AIRC (see Harding & Harding 2004). A second approach is to ask firms to recount their actions and choices retrospectively. For instance, a sample of businesses in lower-wage industries could be asked specific questions about how they dealt with the cost impact of previous minimum wage rises. Such a survey could be conducted qualitatively, in the manner of a case study or a set of structured questions probing business behaviours and rationale. The final option is to follow a sample of firms

over time, constructing a panel similar to that used in the household-based HILDA survey. Firms in the panel would be asked about their wage costs, hiring practices, product prices, work organisation, and other relevant factors, repeatedly at regular intervals. In this way, their responses to increases in the FMW could be observed directly.

The order of presentation of these three options accurately reflects the quality of data which would be obtained by their use. The *prospective* method, which asks owners to speculate about their actions, invites normative responses and on the whole is unhelpful. The *retrospective* survey is too reliant on respondents' fallible memories, although it is better. The *panel* method is by far the best, because it observes actual behaviours as they occur. The downside of such an approach is the cost of recruiting and maintaining the panel of firms forward through time. The high cost – and perhaps the lack of understanding among policymakers about what benefits such panel data might deliver – probably explains the current lack of good workplace evidence, and the reliance on cross-sectional surveys.

However, there are positive signs from the ABS that efforts are underway to remedy the present lack of information linking wages and working arrangements to indicators of firm performance. We mention two such initiatives. In May 2007, ABS released a discussion paper on its Business Longitudinal Database (BLD), which began in 2004–2005. An initial release of data from the BLD is due in mid-2008. The database will bring together a host of previously separately collected information on businesses in Australia, including their financial performance, exports, and employment. One key issue driving the BLD is the desire to better explain firm-level productivity growth and the factors that drive it. The BLD is at the frontiers of ABS data collection, as it involves linking different Commonwealth data sources, including administrative data such as reported in Business Activity Statements and other regular reports to the Australian Taxation Office. It also has the very attractive feature of being a *panel* survey, thus generating the insights of the highest level (see above) about changes in business activity and employment and their causes (including any changes in the FMW). Firms remain in the panel for five years.

For the present purposes, the key component of the BLD is the section on business employment. While the range of topics is still being finalised by the ABS, it is clear that the survey will include items capturing number of employees, full- and part-time composition of the workforce and usage of casual employees, numbers of employees commencing and ceasing employment with the business in each year, and types of pay setting arrangements. This information can be matched to information about the wage bill, and about the industry of primary activity, to get a sense of whether the business is likely to be a low-wage employer. Such information could potentially allow several difficult questions about the employment practices of employers, and the responses of *low-wage* employers to minimum wage increases, to be answered. Over five years, the panel of firms could be observed to see, for instance, whether low-wage businesses reduce employment, increase prices, take other steps to raise productivity, or indeed go out of business altogether, when they are forced to absorb the cost of a higher minimum wage. The ABS is seeking input as to the content of the BLD, and the Commission and Secretariat could look to influence the types of data collected to measure some of the key impacts of wage-setting decisions.

Another prospective addition to the ABS collection is a Linked Employer–Employee Database (LEED). At present, this remains more of an ambition for the ABS than an actual component of its survey and data collection roster. The project awaits funding and legislative approval by the Commonwealth Parliament. In the latter case, this is a result of privacy issues and present limitations on the terms of ABS access to personal income tax records held by the Australian Taxation Office, which are required to link the information about

individual incomes to other administrative data sources, as well as to the separately collected employer information (via the business ABN, known to both the employer and employee). Given these circumstances, it is unlikely that, even if the project receives the necessary clearance and support to proceed, any linked data will be available prior to late 2009. Despite the timeframe, it would be remiss for the architects of a monitoring strategy for the AFPC to overlook what benefits the LEED might deliver, if it does proceed. In particular we mention it because such knowledge can help guide the Commission's thinking about the future program of work and new data collection it should support. It is not advisable for the Commission to commit to collecting data which might duplicate the efforts of the ABS. However, if the LEED project stalls or is abandoned, the Commission should reconsider its position. At such point, a small trial survey, linking information on employers with relevant employee information might again become feasible and worthwhile to extend the monitoring.

3.2 Individual employment and earnings dynamics

The above ABS surveys (except the BLD) have in common the collection of cross-sectional data. Each month, quarter, year, or longer interval, information is collected from a representative sample of individuals or businesses, and used to estimate characteristics of, or change within, the larger population. A different sort of data – 'panel' or longitudinal data – is collected in the Household Income and Labour Dynamics in Australia (HILDA) survey. In HILDA (as with the BLD) repeat information is drawn from the *same* individuals, allowing the dynamics of respondents' experiences to be monitored over time.

HILDA is an impressively comprehensive survey. Among the variables collected are details about individuals' current employment and work history, including wages, job tenure, contract type, and perceived job security; qualifications completed and being studied for; English proficiency; health and disability; and other measures of job and life satisfaction. HILDA collects all these pieces of information at the same time, in intensive, face-to-face interviews, conducted at the respondents' homes, by trained researchers. But this *depth* of information on each adult within the HILDA is traded for reduced sample size and less frequent (annual) data collection. While HILDA is generally representative of the population at large, it becomes less so if subgroups of interest – such as the recipients of minimum rates of pay – comprise only a small fraction of the total sample.

The HILDA microdata can be used to understand more about the dynamics of work and labour market participation for groups of special interest to the Commission. The successive waves of HILDA data show how particular individuals move between the different labour market states over several years, in the context of the changing real value of minimum wages. It will be possible to test whether the average experience prior to the Commission's first wage-setting decision has since changed, using data from previous and future waves of the survey. One issue to be explored is the degree of employment precariousness for low-skill individuals, relative to average. Another is the extent of earnings mobility. Yet another is the degree to which the low-skilled succeed in re-engaging with work after periods of exclusion or withdrawal.

In more sophisticated future analyses, HILDA panel has the ability to control for 'unobserved' individual differences. This moves the analysis of the impact of AFPC decisions closer to cause and effect. Simply stated, where cross-sectional data are analysed, researchers cannot be certain what portion of any change in the variable of interest from one period to the next is attributable to unobserved differences between persons sampled in one period, and those sampled in the next. Panel data allow such unobserved traits to be controlled, by assuming that each individual has an unchanged level of the unobserved factor; for instance, personal motivation, in studies explaining earnings differences and mobility.

3.3 Holes in the safety net

We know from recent research sponsored by the Commission, and from similar past work, that some individuals receive hourly rates of pay which appear to be below (in some cases substantially below) the level of the standard Federal Minimum Wage, which is intended to function as a national wage floor. This is a puzzle which calls out for further exploration. The situation is not attributable to junior rates of pay (since it applies to adult employees), nor is it a product of some workers having unusually long working hours which translate into very low 'imputed' hourly earnings. At present it is difficult to know whether the 'sub-minimum' wages represent cases of illegal payment below mandated minima, whether affected workers are exempt from the minimum wage system because of their form of employment, or indeed whether the cases reflect misreported earnings, hours, or some other data error.

Future monitoring efforts should look to explain this situation. How significant are the holes in the safety net? Different sources of data – EEBTUM, EEH, and SIH – could be used to produce alternative earnings distributions. We would use EEBTUM CURF for initial study, as has the largest sample (out of those that include earnings), and allows us to remove owner managers from the analysis. As a first step, data error should be ruled out as an explanation. If the data are not in error, a post-enumeration survey of respondents to the original ABS questionnaire should be considered, to see why the individuals on low rates of pay are not receiving the FMW. This information affects the Commission's understanding of its economic and social impacts, because it is unlikely that those receiving below the FMW are benefiting from any decision to increase it. One potential outcome of WorkChoices is that the FMW will be extended to workers who previously were in 'award-free' sectors. If this is occurring, it should show up in the number receiving below the FMW.

References

- Burgess, J (2004) 'The federal arbitration system and Australian economic performance', *Journal of Industrial Relations*, Vol 46, No 4, pp413–29.
- Hancock, K (1998) 'The needs of the low paid', *Journal of Industrial Relations*, Vol 40, No 1, pp42–62.
- Harding, D & Harding, G (2004) *Minimum wages in Australia: an analysis of the impact on small and medium businesses*, report to the Commonwealth Department of Employment and Workplace Relations, March 2004.
- Healy, J & Richardson, S (2006) *An updated profile of the minimum wage workforce in Australia*, National Institute of Labour Studies report to the Australian Fair Pay Commission, September 2006.
- Leigh, A (2003) 'Employment effects of minimum wages: evidence from a quasi-experiment', *Australian Economic Review*, Vol 36, No 4, pp361–73.
- Leigh, A (2005) 'Does raising the minimum wage help the poor?', CEPR discussion paper no. 501, Economics Program, Research School of Social Sciences, ANU.
- Lewis, P (2006) 'Minimum wages and employment', Centre for Labour Market Research report to the Australian Fair Pay Commission.
- Nickell, S & Layard, R (1999) 'Labor market institutions and economic performance', *Handbook of Labor Economics*, O. Ashenfelter & D. Card (eds.), Elsevier in New York, pp3029–84.
- Saunders, P (2006) 'The historical development of budget standards for Australian working families', *Journal of Industrial Relations*, Vol 48, No 2, pp155–74.

Appendix on data sources

This appendix summarises and compares the data sources used in the monitoring. The data are predominantly from the ABS collection, with the HILDA survey providing further information. Both the ABS and HILDA surveys offer high quality data, with samples that can be disaggregated to identify different attributes of the low-skilled. There is a trade-off between the breadth and depth of information. ABS surveys have larger samples but, compared to HILDA, fewer questions. Data from different surveys must therefore be combined to give a complete picture of the employment and safety net effects of AFPC decisions. The central monitoring task is to find reliable sources which are regular enough to capture the temporal effect of wage-setting decisions, yet detailed enough in content to pinpoint the likely recipients of any wage adjustment.

ABS Labour Force Survey (LFS)

The monthly ABS Labour Force Survey is the principal source of national statistics on employment, unemployment, and labour force non-participation. Employment estimates from other ABS surveys are generally seen as subsidiary to LFS estimates. The survey is conducted at household-level, on a continuous monthly basis, with a sample of approximately 60 thousand adults. Households cycle through the sample over a period of eight months, with one-eighth of the total number dropping out and being replaced every month. The ABS attempts to match the household records from each month with those from preceding months, giving a limited longitudinal element to the data. This information is used to produce the 'gross flows' estimates discussed in Section 2.1, and shown in Matrix A.

Much useful LFS data is provided free of charge in ABS 'data cubes'. Estimates can be generated for detailed sub-groups by downloading the data cube and manipulating or recoding the available variables in the SuperTable program (also freely available). Data cubes provided on a *monthly* basis include labour force status (employed full-time, employed part-time, unemployed, not in the labour force) disaggregated by: sex, age, state/territory and region of residence, marital status, country of birth and year of arrival, relationship in household, and education attendance (for persons aged 15–24 years only). A separate monthly data cube contains disaggregated gross flows data by sex, state, and age. *Quarterly* data cubes contain further information about employed and unemployed individuals. The main additions to the monthly data are industry and occupation of employment for those in work, job tenure, average hours worked, and status in employment (employee, employer, contributing family worker).

Of course, the Commission and Secretariat are not limited by what the ABS provides in freely downloadable data cubes. The option exists to order tailored data tables from the ABS, if it is felt that some alternative presentation of the data collected in a given survey would better suit the Commission's needs. There are, however, two problems with this approach. First, the tailored data service cannot extend the boundaries of the original survey. For instance, items which are not presently available in the same data cube, but which nonetheless were collected on the original survey, could be presented in a new table, on request. But information about individuals' highest qualifications or earnings, which are not part of the monthly or quarterly LFS, cannot be represented in such tables more frequently than they are in fact collected (usually annually, see next section). A second problem is that tailored data may be costly to produce, especially if done regularly, say every month. This is a specialised service provided by the ABS at a charge based

on staff time. An alternative approach, which offers similar flexibility to the tailored data service, but lower marginal costs, is to use the 'confidentialised unit record file' (CURF) microdata, periodically released by the ABS on CD and in other formats to approved users.

The ABS Labour Force Survey is an incontrovertible source of national statistics on employment and unemployment, but its scope is narrow to reduce the burden on respondents. Two key exclusions from the monthly survey are individuals' educational attainment, and the earnings of those in work. These items are collected in annual supplementary surveys, taken from sub-samples of the whole LFS sample at different times.

Employee Earnings, Benefits and Trade Union Membership (EEBTUM)

The EEBTUM survey is taken annually, in August, of persons within the LFS sample who are employees, including owner-operators of incorporated enterprises. In August 2006, information from approximately 29 thousand employees contributed to the final EEBTUM estimates. The principal advantage of the EEBTUM, compared to the basic LFS and the other LFS supplements, is the collection of weekly earnings information. Another attractive feature of the survey is the collection of working hours in different formats. Respondents report their *actual* working hours in the survey week, the hours they were *paid for* in that week, and the hours *usually* worked in their main job. This arrangement of the data provides a suite of alternative measures for calculating hourly earnings (the key variable for monitoring AFPC decisions). A notable exclusion from the survey is any variable capturing formal qualifications, which makes it difficult to control for individual differences in human capital when comparing hourly earnings. However, occupation of employment may be useable as a proxy for individual skills.

The EEBTUM data are released publicly in two stages. The first is annual publication of *Employee Earnings, Benefits and Trade Union Membership* (ABS catalogue no. 6310.0). The basic publication contains estimates of mean weekly earnings, tabulated against other demographic and labour force attributes, such as age, country of birth, industry and occupation of employment. The published estimates could be either be used 'as is', or a more specific request could be made using the ABS data service.

The second stage of EEBTUM data release involves the CURF microdata. The first EEBTUM CURF release occurred in August 2005, making available data from the month of August 2004. The data were released along with microdata from the LFS, also for the first time. In effect, the dataset contained two levels of information. The first was the August 2004 sample of LFS respondents: some 60 thousand individuals, aged 15 years and over, who answered basic questions about their labour force status. The second level was the EEBTUM sub-sample: 25 thousand employees reporting their status in employment, weekly earnings, hours of work, occupation, industry, trade union membership, and so on. In a welcome initiative, the ABS has indicated that EEBTUM microdata will now be released on a biennial basis, with the next due in May 2009. (The August 2006 data were released on 1 June 2007).

There are two levels of access to the CURF microdata. The first is through a 'basic' file provided on CD. The second is through a secure area of the ABS website known as the Remote Access Data Laboratory (RADL). Registered users submit program code via the RADL, which is then processed within the ABS environment. The key benefit of using the RADL is the provision of 'expanded' CURF access. In practice this means additional detail

on existing questions, and/or additional data items. The provision of continuous weekly earnings and age data, and more detailed occupation and industry of employment, are examples from the EEBTUM CURF which are only accessible through the RADL.

In general, microdata improve on the analyses which can be carried out using only the published estimates. First, microdata enhance user control over presentation of survey results. Once an initial outlay is made to acquire the data, the marginal cost to produce new tables, on demand, is close to zero. Second, the data can be shaped to better meet the monitoring requirements of the Commission. For example, self-employed workers who are exempt from the minimum wage, but who are usually counted as employees (and probably as *low-paid* employees), can be deleted from the analysis.

It should be noted that while the EEBTUM microdata will only be released biennially, LFS microdata will be released annually. This is because, in years between EEBTUM releases, the ABS plans to package the LFS microdata with information from another supplementary survey, Labour Mobility.

Labour Mobility

The Labour Mobility survey is conducted biennially, in February of evenly-numbered years (most recently 2006), with a subset of the total LFS sample in that month. The purpose of the survey is to monitor changes in how and where employees worked in the preceding 12 months. The February 2006 labour mobility figures were estimated from original interviews with approximately 36 thousand individuals aged 15 years and over. The survey included both employees whose main employer or business had changed in the previous 12 months, and employees who had remained with the same employer but changed working hours, occupation, or level of work responsibility.

The structure of data release from the Labour Mobility survey is very similar to that reported earlier for the EEBTUM survey. The first stage is publication of estimates in basic form, in *Labour Mobility* (ABS catalogue no. 6209.0). This typically occurs 6 to 10 months after the original release; for instance, estimates from the February 2006 survey were first published in December 2006. The basic *Labour Mobility* publication provides an overview of job change within the Australian workforce in the period.

The second stage of data release involves the Labour Mobility CURF microdata. The ABS has released such data before on a sporadic basis, but now releases biennial data. Unlike EEBTUM, Labour Mobility has information on educational attainment, which allows some control over formal skills in the monitoring exercise. Unfortunately, the mobility data do not include information on changes in *earnings*.

The ABS has taken the deliberate step of staging the LFS microdata releases to ensure a steady stream of information from the main and supplementary surveys. Its intention is to release the basic LFS microdata annually. In May of odd-numbered years, LFS microdata will be accompanied by supplementary information from the EEBTUM. In November of even-numbered years, the basic LFS microdata will be released along with supplementary information from the Labour Mobility survey. At time of writing, there have been only three releases of LFS microdata: two with the EEBTUM data, in August 2005 and June 2007, and one with the Labour Mobility data, in May 2007.

Survey of Education and Work (SEW)

The Survey of Education and Work is conducted annually in May with individuals aged 15–64 years. One purpose of the survey is to assist researchers and policymakers to understand the transition from education to work, especially for persons aged less than 25 years. Accordingly, the survey contains detailed information about education attendance, field of study, completed qualifications, labour force status, and type of work obtained. Employment details include working hours, occupation, and industry, but exclude earnings. Duration of unemployment is recorded for those seeking work.

The initial release of SEW estimates is in the basic publication *Education and Work* (catalogue no. 6227.0). The published estimates include enrolments by field and level of study, labour force status of current students, and distribution of employed persons across non-school qualification categories, by age, sex, country of birth, and industry.

Since 2002, there has been a biennial release of the SEW CURF microdata. The latest microdata, from May 2005, were released in basic format (on CD) in April 2006. One usage of the data would be to monitor the labour force status and employment of low-skill individuals on an irregular basis. The ability to control for differences in formal qualifications is fundamental to such an analysis, although 'relationship in household' information is also helpful, given the higher incidence of low-pay for lone parents and non-dependent children. However, the SEW CURF contains a quite narrow range of labour force data. There is no earnings information. Nor does the survey provide job tenure, employment status, or other indicators of job quality, such as paid leave. The preferred use of the SEW data is to fill some of the gaps left by collection irregularity and release delays with other surveys. It cannot stand alone as a monitoring resource.

Average Weekly Earnings (AWE)

Unlike the Labour Force Survey, which is based on a large sample of households, the Survey of Average Weekly Earnings (AWE) draws its information from a sample of approximately 5500 'employer units', using a Business Register maintained against Australian Taxation Office records. Estimates are published each quarter in *Average Weekly Earnings* (ABS catalogue no. 6302.0). The estimates are for gross (pre-tax) earnings, based on information collected from businesses about the weekly earnings and number of employees in a specific pay period. The survey excludes agricultural employees and employees in private households, as well as casuals without work in the reference pay period, employees on leave without pay, and the self-employed.

The basic AWE publication includes original, seasonally adjusted, and trend estimates of average weekly earnings, disaggregated by sector of employment (public/private), industry, and state or territory, with each of these further spilt by sex. In most tables, the earnings estimates distinguish between 'ordinary-time' and 'total' earnings. Time series spreadsheets are available which trace these quarterly figures back over several years. These provide the best available estimates of average earnings in different parts of the national economy, with accompanying percentage growth rates each quarter.

AWE estimates are affected by 'compositional changes' within the labour force. This means that the estimates depend not only on changes in the *level* of earnings, but also on the sample of workers. If there is a redistribution of employment toward high-paid industries, or toward shorter working hours for unchanged pay, this will raise average earnings. AWE estimates do not measure changes in the price paid for a fixed type of labour input. They do, however, provide an indicator of general living standards among those in work.

Consumer Price Index and Labour Price Index (CPI and LPI)

The ABS produces several indices of prices and costs within the Australian economy. The two most useful for monitoring the impact of AFPC decisions are the Consumer Price Index (CPI), and the Labour Price Index (LPI). The method common to both the CPI and LPI is the construction of index numbers that measure price changes relative to a base period, using a 'fixed basket' of representative consumer goods, in the case of the CPI, or labour outputs, in the case of the LPI. This allows estimates of changes over time that are unaffected by compositional changes, such as in the nature of work performed by Australian employees. Both CPI and LPI are published quarterly.

The CPI is the basis of national inflation statistics. The current reference base period for the CPI is 1989–90, although quarterly estimates for Australia are readily available back to 1948–49. The basic index numbers and quarterly percentage changes appear in the publication, *Consumer Price Index, Australia* (ABS catalogue no. 6401.0), and a number of related time series spreadsheets.

The main LPI outputs of interest to the Commission are the four wage price indexes, which capture quarterly changes in either 'ordinary-time' or 'total' hourly pay rates (i.e., excluding and including overtime, respectively), either with or without bonuses. These series are available quarterly since September 1997, when a 'Wage Cost Index' commenced. (However, the current base reference period for the LPI is 2003–2004.) The index numbers are calculated separately for the private and public sectors, and can be further split by state, industry, and occupation of employment.

Employee Earnings and Hours (EEH)

The Survey of Employee Earnings and Hours is conducted biennially in May of even-numbered years (most recently May 2006). The survey uses a two-stage, stratified sampling process. In the first stage, a sample of approximately 9000 'employer units' is recruited from the ABS Business Register, based on sector, industry, state, and location size (number of employees). In the second stage, these employers select a number of employees at random from their payroll records, and provide information from these records about earnings, working hours, and, more recently, the 'method of setting pay'. The final sample of employees within the EEH approaches 60,000, making it nearly as large in size as the Labour Force Survey. The comprehensive size of the sample, and its collection method, means that EEH data can be used to produce estimates for more detailed sub-groups of workers than is possible with smaller (and more frequent) ABS surveys.

Since May 2000, the EEH has included questions on the usage of different industrial instruments for setting pay. The main distinction is between employees whose pay is mainly set by award only, by collective agreement, or by individual agreement. There are further breakdowns by jurisdiction (federal or state), and, for employees with pay set by collective or individual agreement, whether that agreement is registered with a relevant statutory authority. The 'methods of setting pay' data have been extensively used in previous national wage and safety net review cases, and in the initial decision of the AFPC. The present statutory scheme complicates the usage of the methods of pay-setting data, however, because of the treatment of the previously distinct federal and state award systems. Under the current scheme, this distinction is subsumed into a new set of pay-scales, including the standard Federal Minimum Wage. The employees principally affected by AFPC decisions are those in sectors where 'pay-scale reliance' is high, while others potentially affected are those who would benefit from extension of the FMW into

previously 'award-free' areas of the labour market. EEH data show what proportion of employees in each industry, occupation, etc., are pay-scale reliant, their average earnings, and how earnings are distributed within pay-setting groups.

The chief limitation of the EEH, compared to household surveys such as the LFS and its supplements already reviewed, is the lack of access to the survey microdata. This means that specific requirements for tailored data must be directed through the ABS, rather than left to the discretion of individual users.

Survey of Income and Housing (SIH)

The now-biennial Survey of Income and Housing is one of the most established tools for Australian research into low pay, earnings inequality, and the income distribution. It has the important feature of allowing individuals' characteristics to be connected to information on the income positions of their families and households. SIH is unusual, too, in collecting information about both formal qualifications and weekly earnings in the same place, improving the explanatory power of earnings models.

The 2003–2004 SIH used a sample of approximately 11,000 households, including nearly 14,000 'income units', and with detailed person-level information on 22,000 individuals aged 15 years and over. These three levels of information – the household, income unit, and individual – underpin much SIH analysis. The household level has information on composition and demographics of inhabitants, earnings and government transfers, and, occasionally, household 'net worth'. The person level has information on individual characteristics, such as labour force status, weekly earnings and working hours (if employed), regular transfers or pensions, and qualifications.

As the SIH evolves, improvements may be made which better target the recipients of pay rates regulated by the AFPC. For example, the 2003–2004 SIH allowed bonuses and amounts salary sacrificed to be separated from the measures of usual wage and salary income. The ABS intends to continue the SIH biennially, with 2005–2006 data expected in mid-2008.

A final issue is how the Commission should arrange its access to the SIH data. There is the option of referring only to published ABS estimates, or engaging the specialist ABS data service to generate tailored data as these become available. This is flexible, but has the drawback of a high cost. The main consideration, in our view, is the need for incontrovertible data. The risk of error falls dramatically if expert ABS staff have the responsibility for arranging and analysing the necessary data for the Commission. Authoritative data are critical for the acceptability of any monitoring exercise in the eyes of the different parties interested in the outcomes of Commission decisions. The main alternative to relying on the ABS is for the Secretariat to use the SIH microdata, released biennially with a lag behind the basic publication (*Household Income and Income Distribution, Australia*, ABS catalogue no. 6523.0), to generate data tables or models under instruction from Commission members.

There are three considerations with this alternative approach. First, there is unlikely to be a very long delay between the publication of basic SIH results by the ABS and the release of the microdata. Since the interval between the actual timing of Commission decisions and the collection of relevant data is already wide, as must be the case with less frequent surveys such as SIH, the need for immediate data access for monitoring purposes diminishes. A short delay in accessing the microdata is therefore tolerable, given the analytical benefits it provides. Second, a request for tailored data requires a

very well-developed understanding of what data are needed and how they should be presented. Communicating the precise format of a desired data table, where multiple variables are cross-tabulated, and possibly with various subgroups excluded to target special groups, can be time-consuming and very costly to repeat if mistakes are made. It also encourages a somewhat rigid analytical approach, where potentially valuable alternative arrangements of the data are overlooked or disregarded for the sake of data consistency over time, and where new features of surveys are not noticed or exploited. The Commission is still accumulating knowledge of how the low-wage labour market operates, which makes the rigid approach somewhat less appealing, and the low-cost flexible alternative of using the CURF microdata in-house more attractive. Third, the expertise of Secretariat staff will grow by using and experimenting with the different possibilities available in a complex microdata file such as the SIH. Over time, the gap between the quality of information produced externally by the ABS, and internally by AFPC staff, should narrow. The case for utilising the microdata, rather than the ABS tailored service, will thus grow stronger as the Commission refines the monitoring.

General Social Survey (GSS)

Every four years, the ABS conducts a General Social Survey to collect information about a range of social issues not usually covered by other ABS surveys, and about additional issues incorporated as one-off modules. The focus is on the relationships between different areas of social concern, such as housing, employment, health, and financial stress. The first GSS, taken in 2002, included supplementary details about household use of information technology and individual involvement in cultural and recreational activities. The second GSS, taken over the months of March to July 2006, included new details about household mobility, social capital, access to education and training, and immigrants' visa category, if appropriate. Some 13,000 households provided information from which the 2006 GSS population estimates were generated.

The core of the survey involves questions about standard demographic characteristics (age, sex, and marital status); employment status, working hours, and precariousness; incomes, assets, and financial stress; education attainment and participation; housing access and costs; and health and disability. Data items collected in the GSS which are likely to be useful for monitoring decisions of the AFPC, and which are not elsewhere collected more frequently in the same place, include: household remoteness and area of state or territory (surpassing the usual capital city/balance of state distinction); self-assessed health and whether individuals have specific disabilities which restrict their ability to work; very detailed information on working hours, occupation and industry for the employed; main source and amount of personal and household income; assets and liabilities, such as values of home and consumer debt; financial stress indicators, including timing and frequency of exposure; personal stressors, such as proximity to crime; perceived social support; and reasons for household mobility, including moves related to employment opportunity. The GSS does not have earnings, but information on 'main source of income' enables identification of households with wages as their primary income source. Expanded access to the GSS is available through the RADL, which is necessary to describe more detailed characteristics such as personal income, expenditure, and industry of employment. Potential limitations of the GSS include the comparatively small sample (13,000 individuals aged 18 years and over), and the long gap between surveys.

Notes

Australian Fair Pay Commission
Locked Bag 35003, Collins Street West, MELBOURNE VIC 8007
Telephone 1300 139 699 or 03 8621 8212, Fax 03 9620 4868
www.fairpay.gov.au

