# 5 Some underlying trends in labour adjustment

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| Key points |
| * During any given period, some people move into or out of the workforce, or change industries, occupations and/or locations. Shifts in the sectoral composition of the economy are one of many reasons people change jobs. * In the past decade, gross labour flows have largely been consistent with the long‑standing sectoral shifts observed in the workforce composition of the Australian economy. * The slowest‑growing sectors in terms of employment, agriculture and manufacturing, have been shedding proportionally more workers and attracting fewer new workers. Meanwhile, most new and existing workers gravitated towards the rapidly‑expanding services sector (which includes Professional, scientific and technical services and Health care and social assistance). * Aspects of work have changed in ways that reflect structural change. Compared to the early 2000s, employers are: * requiring workers to have higher skills and qualifications * adopting non-traditional modes of employment more widely * increasingly negotiating wages at the level of the workplace. * These features are generally more prevalent among the fastest‑growing sectors. This suggests that such features have not impeded and may have facilitated their expansion and, therefore, facilitated structural adjustment. * The process of structural adjustment relies on workers responding to various signals from the labour market that indicate where the demand for labour is strongest and, as a result, give them an incentive to move. * Among these signals, relatively higher job vacancies, lower redundancies, higher wage levels and stronger wage growth have generally been exhibited by the fastest‑growing sectors, particularly mining. * The overall shift towards more decentralised, enterprise-level wage‑setting mechanisms appears to have aided the structural adjustment process, as clearer signals can be conveyed to workers about where their labour is in greater demand. |
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Earlier chapters of this supplement (chapters 2 and 3) looked at how drivers of structural change have, over time, altered the type of goods and services demanded in the economy and the way in which they are produced. These drivers have, consequently, also altered the demand for, as well as the supply of, labour. This has resulted in changes in the distribution of workers across different industries and locations, as was profiled in chapter 4. Underlying these observed changes, a multitude of adjustment mechanisms guide and facilitate the reallocation of labour within the workforce. This chapter presents a range of indicators that illustrate how workers, in response to pressures for change, have made adjustments to their engagement with the labour market throughout the past decade.

Section 5.1 describes the extent to which workers have been changing their sector, occupation and geographic location of employment. Section 5.2 discusses some of the ways in which the nature of work (including work arrangements and wage‑setting mechanisms) has changed over time, and how these changes not only reflect the process of structural adjustment, but might also have facilitated it. Since structural adjustment involves workers responding to signals from the labour market to move to those parts of the economy where they are most highly valued, section 5.3 examines some of the signals that motivate workers to adjust.

Throughout this discussion, it is recognised that while labour market outcomes reflect the interplay of supply and demand, they are also affected by broader institutional and policy settings. Given the multitude of factors at play, the labour market’s adjustment to structural change does not necessarily transpire instantly or smoothly, and some of the potential barriers to the process are noted.

Most of the analysis in this chapter centres on changes observed in the labour market during the decade to 2010. This is due to a reliance on detailed individual‑level data, only available from the Household, Income and Labour Dynamics in Australia (HILDA) survey.[[1]](#footnote-1) Although this period overlaps inexactly with the 2002–2012 focus of this supplement, it nonetheless captures structural adjustment that accompanied the natural resources boom, as well as that associated with the Global Financial Crisis (GFC).

## 5.1 Indicators of labour mobility

A certain degree of mobility is expected in the labour market, as some workers change their sector, occupation or job, or move in and out of the labour force completely, due to changes in their personal preferences or circumstances or in aggregate business conditions. Yet, in part, these transitions can also align with patterns of industry expansion and contraction indicative of long‑term structural change.

### Movements into and out of employment

Workers’ movements into employment (from being unemployed or ‘not in the labour force’ in the previous year) and away from it — in terms of the sectors (broad industry groupings)[[2]](#footnote-2) that they most commonly joined and exited — largely accord with broader shifts in the composition of employment during the 2000s (figure 5.1).[[3]](#footnote-3)

This is demonstrated by the fact that, between 2001 and 2010, a majority of new entrants into the workforce joined the distribution, social and personal services sectors. Within these sectors, a large and rising share joined the Health care and social assistance industry (data not shown). This is partly indicative of a key demographic shift underlying structural change, namely the growth in demand for the services required to meet the needs of the ageing population (chapter 2). By contrast, a falling proportion of new entrants into the workforce joined the agricultural and manufacturing sectors, which is consistent with the long‑term decline in these sectors’ shares of output and employment (chapters 3 and 4).

Large shares of workers who were moving into, or out of, employment joined or exited the distribution services and personal services sectors (particularly the Retail trade and Accommodation and food services industries (data not shown)). This can be partly explained by the high prevalence of casual employment (section 5.2) and the lower skill requirements of these industries, which mean that, compared with most other industries, they offer more accessible job opportunities for young workers and those who tend to seek employment only sporadically. Indeed, the expansion of these industries over time is due, in part, to the job opportunities they have been able to offer women, who have been a growing component of the workforce and who, for a variety of reasons, are more likely to work intermittently. The high intake of new entrants also reflects a tendency for young workers to take up jobs in these industries (typically on a casual basis and, often, while studying) as a stepping stone towards a more permanent career in another higher‑paying industry. Collectively, these features contribute to a generally high rate of staff turnover, as reflected in figure 5.1.

Figure 5.1 Workers moving into or out of employment between consecutive years, by sector, 2001 to 2010**a, b, c, d**

Per cent of all workers moving into or out of employment

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a If not in employment, individuals were either unemployed or ‘not in the labour force’. b Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who moved between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. c Mining is excluded due to low sample count and high standard errors associated with these estimates. d Estimates refer to the working‑age population (15–64 years) and are population‑weighted.

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

ABS data on labour mobility between 2009 and 2010 present a similar picture. Workforce entrants most commonly joined the distribution, social and personal services sectors (driven chiefly by movements into Retail trade, Accommodation and food services, and Health care and social assistance). These were also the sectors, in addition to manufacturing, from which most workers exited (largely due to exits from Retail trade and Accommodation and food services) (ABS 2010c).[[4]](#footnote-4)

The data presented in figure 5.1 measure gross flows of workers in and out of each sector, as a percentage of all workers (economy‑wide) entering or exiting employment. Larger sectors would be expected to attract a commensurately higher proportion of new workers (and smaller sectors a smaller proportion of new workers). Similar reasoning applies to exits.

Adjusting the proportions of entries and exits in figure 5.1 for each sector’s respective workforce size reveals the ‘propensity’ of sectors to be a destination for entering workers, or a source of exiting workers, over the 2001–2010 period (figure 5.2). This analysis shows three sectors — agriculture, distribution services and personal services — to have been both a stronger destination *and* source than their size would predict. This is indicated by ‘relative proportion’ values consistently above one in figure 5.2. The remaining sectors, with values below one, recorded inflows and outflows lower than expected based on their size.

The data in figure 5.2 illustrate the role played by workers entering employment and leaving employment altogether in the relative expansion or contraction of sectoral workforces. For example, the agriculture sector consistently lost more workers than it recruited, during the 2001–2010 period. This net loss contributed to the contraction in its share of the overall workforce (chapter 4).[[5]](#footnote-5)

In contrast to agriculture, manufacturing’s propensities to attract new workers and shed existing ones were both low, relative to its workforce size (with relative proportion values consistently below 1 in figure 5.2). That sector’s workforce contraction over the 2000s — in both absolute and relative terms — is partly explained by:

* its recruitment of progressively fewer workers from the ranks of the unemployed and people outside the labour force, and
* its loss of progressively more workers who became unemployed or left the labour force altogether.

In utilities and construction, the scenario is similar to that in manufacturing, in that the sector’s propensities to attract new workers and shed existing ones were both low, relative to its workforce size. In personal services, the sector’s propensity to lose existing workers during the 2000s was much higher than in other sectors, relative to its workforce size. But the sector attracted an even higher proportion of new entrants.[[6]](#footnote-6) These trends would have contributed to an expansion in the sector’s relative employment size, all else equal. Distribution services exhibited features similar to those of personal services, though to a lesser extent.

Figure 5.2 Workers moving into or out of employment between consecutive years, by sector, relative to sector size,  
2001 to 2010**a, b, c, d**

Relative proportion of all workers moving into or out of employment, by sector

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a ‘Relative proportions’ compare sectoral shares of entering/exiting workers to that sector’s share of total employment. For example for ‘movements into employment’, a value greater (less) than one indicates that the share of new entrants joining a sector is greater (less) than its share of total employment. A sector’s proportionally high (low) intake of new entrants contributes to an expansion (contraction) of that sector’s share of total employment. b Mining is excluded due to a low sample count and high standard errors associated with its estimates. c See figure 5.1 (note b) for an explanation of the year groups. d See figure 5.1 (note d).

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

As was the case with unadjusted numbers in figure 5.1, the magnitude of adjusted movements into and out of these two sectors is a reflection of the amount of job ‘churning’ that is typical of some of their component industries, such as Accommodation and food services and Retail trade. This trend is facilitated by the more accessible job opportunities offered by those industries, for those who are new entrants or marginally attached to the workforce.

In contrast to the personal and distribution services sectors, in social services, the propensities to attract new workers and shed existing ones were low, relative to the sector’s workforce size. Given the growth in social services employment, in relative terms, over time (chapter 4), this suggests that workers in social services are less likely than those in other sectors to be new entrants to the workforce at the time that they join the sector.

Business services, with relative proportions close to one in figure 5.2, illustrates a scenario whereby entries into and exits from the sector were on par with its relative employment size. Given this, the rapid expansion in the employment share of Professional, scientific and technical services employment (a component of business services — chapter 4) is likely due to that industry drawing existing workers from other industries, rather than from the pool of the unemployed and those not in the labour force.

The mining sector[[7]](#footnote-7) appeared to attract only a relatively small share (less than one per cent) of new entrants to the workforce (data not shown due to the small sample count in the dataset and the indicative nature of the estimates). Yet, this sector’s workforce expanded rapidly during the 2000s (chapter 4). This suggests that, compared to other sectors, mining sourced proportionally more of its additional workforce from existing workers in other sectors (both from the same jurisdiction and from interstate) and from newly‑arrived skilled migrants from overseas.[[8]](#footnote-8) (Chapter 6 further examines this point.)

### Mobility between sectors

The labour reallocation component of structural adjustment also entails workers moving between different industries or sectors. Across all sectors, on average, around 20 per cent of workers changed sectors within any given year during the 2000s (Productivity Commission estimates using HILDA Survey data from 2001 to 2010).[[9]](#footnote-9)

Figure 5.3 illustrates the share of workers who changed their sector of employment from one year to the next, according to the sector they moved out of. A relatively high share of workers moved from manufacturing and personal services, while a very low share moved from social services. Over the period, the share moving from manufacturing and agriculture grew, while the share moving from mining and business services contracted (figure 5.3). Again, these flows are consistent with broader observed patterns of industry expansion and contraction associated with structural change.[[10]](#footnote-10)

The flows of individual workers between sectors can be mapped more precisely than in figure 5.3. Detailed estimates of the number of workers moving into and out of each sector between 2001 and 2002 and between 2009 and 2010 are presented in figure C.1 (appendix C). Reiterating some broader patterns of structural change, these estimates show how, when comparing the start and end of the decade, the number of workers moving into manufacturing declined, while the number moving into social services grew.

Figure 5.3 Workers changing sector between consecutive years,   
2001 to 2010**a, b, c, d**

Proportion of workers moving out of each sector to join another, as a percentage of all workers in the sector of origin

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aSectoral categories refer to the sector that workers moved *out* of. b Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who changed sector between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. Estimates exclude workers who moved into or out of the workforce completely. c Estimates refer to the working‑age population (15–64 years) and are population‑weighted. d Sectors are defined in appendix A.

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

### Mobility between occupations

Given that occupational profiles differ between industries, workers’ adjustment to the changing structure of the economy sometimes entails them changing occupation. Figure 5.4 shows the share of workers who switched out of their occupation from one year to the next. Managers, Sales workers and Labourers generally demonstrated the greatest propensity to switch to another occupation. Most commonly, they switched to either a Professional, Clerical or Administrative role (data not shown).

While some workers’ occupational trajectories reflect a transition to a higher‑skilled job as part of their career progression (such as Labourers transitioning to Technicians or Trades Workers, or Professionals moving into management roles), other trajectories reflect the rising skills or qualifications requirements of jobs in general, which is a feature of recent structural change. As discussed further in section 5.2, some workers have shifted to a higher‑ranked occupation (reflecting a higher‑skilled job) because their former, lower‑skilled job has disappeared. Others have shifted because their job has been reclassified to a higher‑ranked occupation, due to the skills or qualifications requirements of that job rising over time.

Figure 5.4 Workers changing occupation between consecutive years,  
2001 to 2010a, b, c

Proportion of workers moving out of each occupation and into another, as a percentage of all workers in the occupation of origin

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a Occupational categories refer to the occupation that workers moved *out* of. b Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who changed occupation between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. Estimates exclude workers who moved into or out of the workforce completely. c Estimates refer to the working‑age population (15–64 years) and are population‑weighted.

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

### Mobility between jobs

On average, during the past decade, around one of every five workers changed his or her main job from one year to the next (Productivity Commission estimates using HILDA Survey data 2001–2010).[[11]](#footnote-11) This is generally consistent with ABS labour mobility data collected at intervals throughout the same decade. In February 2010, for instance, almost 20 per cent of all workers had started working for their current employer within the previous 12 months (ABS 2012i).

Of those who changed jobs while remaining within the same sector, the highest rates of intra‑sectoral job change occurred in utilities and construction, business services and personal services. In contrast, workers were less likely to change jobs within manufacturing, agriculture, social services and distribution services (Productivity Commission estimates using HILDA Survey data 2001–2010).

Workers’ length of tenure provides another indicator of labour mobility. Throughout the 2000s, on average, the personal services sector had the largest share of workers who had been working for their current employer for less than one year, and the lowest share of those who had been working for their current employer for at least five years (figure C.2 in appendix C).

The mining sector underwent the largest degree of change in the composition of its workforce during the 2000s. Between 2002 and 2010, the share of mining workers who had been working for their current employer for between one and three years expanded considerably, while the share of those employed for at least 10 years shrank considerably. These data reflect the sector’s large intake of new employees from 2003 onwards. As a contrast, the profile of workers by tenure in manufacturing did not change much between 2002 and 2010. This suggests that movements from this sector throughout the 2000s were concentrated neither among the sector’s short‑term nor among long‑term employees (figure C.2 in appendix C).

### Mobility between geographic locations

Better job opportunities and earnings prospects can motivate workers to move location, be it across regional, state or international borders. Previous research indicates that interstate and even overseas migration patterns can be linked to differences in unemployment rates and average wage levels (Debelle and Vickery 1998; PC and NZPC 2012).

Australian data are lacking with which to analyse annual movements of workers in the geographic dimension. The main data source available for that purpose (and used below) is the HILDA Survey. However, the size of that survey means that the number of people who move locations *for work purposes*, from one year to the next, is relatively small. Moreover, HILDA is a longitudinal survey, so that individuals are surveyed over several consecutive years. This characteristic means that the number of ‘movers’ in the sample may become unavoidably lower over time, as data collectors lose track of some individuals who changed addresses. Further caveats applying to the HILDA Survey are listed in appendix C.

Between 2001 and 2010, between 15 and 18 per cent of Australian workers changed their residential address between one year and the next.[[12]](#footnote-12) However, only around 3 to 4 per cent of all workers moved for work purposes, with reasons including to look for work, start a new job with a new employer, be near to work, undergoing a work transfer, or to start or relocate their own business. Of those workers who moved for work purposes, around half moved by more than 50 kilometres (Productivity Commission estimates using HILDA Survey data 2001–2010).

Further light is shed on geographic labour mobility by ABS survey data showing that a majority of self-reporting ‘underemployed’ workers[[13]](#footnote-13) would not be prepared to move ‘if offered a suitable job’.[[14]](#footnote-14) On average from 2000 to 2010, around 25 per cent of underemployed workers were prepared to move intrastate, while around 18 per cent would move interstate (ABS 2012j). This result is likely to be influenced by the fact that underemployed workers are mainly part‑time and female. Their ability to move may, therefore, be constrained by the employment status of the primary income earner in their household, as well as broader family characteristics.

Household composition and preferences are one of the factors influencing the movement of workers, geographically or just between jobs. A number of other potential influences have been identified in the literature, some of which are relevant across countries and some of which are specific to Australia (box 5.1).

Among the group of workers (not just those who are underemployed) who moved residential location for work purposes from one year to the next during the 2000s, some distinctive patterns are apparent (figure 5.5). For example, as a percentage of the destination sector’s workforce, a small and declining number of workers joined manufacturing during that period. This may reflect the fact that a sector with declining employment is likely to offer relatively few job opportunities worth relocating for. In addition, relocation is not always necessary, when changing jobs, if the destination sector also happens to be concentrated geographically.[[15]](#footnote-15)

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| Box 5.1 Factors influencing labour mobility |
| A range of factors can potentially influence labour’s capacity to respond to pressures for structural change, especially with respect to moving geographic location. Factors identified in the literature that might reduce the mobility of Australian workers include:   * the costs of relocation, including the costs of travel, removal and property transaction, such as stamp duties and conveyancing (Ferreira, Gyourko and Tracy 2011; Grady and Macmillan 2007; PC 2004, 2013) * rates of home ownership and factors affecting home ownership, such as conditions in the housing market and differences in housing prices between different areas (Blanchflower and Oswald 2013) * registration and licensing requirements of a given industry or occupation, which can sometimes be jurisdiction‑specific (Grady and Macmillan 2007; Knox 2010; PC 2009) * the portability and eligibility requirements of a worker’s employment‑based entitlements (such as some forms of leave) (Grady and Macmillan 2007) * the needs and preferences of a worker’s family and other household members, including the availability of school and community facilities, and their employment and earning prospects (Berger‑Thomson and Roberts 2012) * less tangible factors, including a worker’s ability to cope with separation from their family and social networks, the sense of isolation if relocating to a remote area, and the potential stress of dislocation experienced by their family if they relocate too (McKissack et al. 2008).   At the very least, workers’ capacity to respond to the changing structure of the economy requires them to be aware of job opportunities and wages available in other industries, occupations and locations. A lack of sufficient information could, therefore, impede workers’ responsiveness, which could be borne out in lower mobility.  Information deficiencies and other barriers to mobility mean that, even if workers are willing to move as a result of a downturn, their relocation may take time. Previous research suggests that, during the 1990s, it took an average of four years for most of the out-migration of labour to occur, in response to state‑specific economic downturns (Debelle and Vickery 1998). All else equal, the entire process of adjustment through interstate migration was estimated to reach completion after seven years. Labour’s responsiveness appears to have increased during the 2000s, yet such adjustments are still thought to take several years (McKissack et al. 2008). The lengthy nature of the geographic mobility process may contribute to the persistence of unfilled vacancies in some industries and regions. |
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Figure 5.5 Workers who moved residential location between consecutive years for work reasons, by sector, 2001 to 2010a, b, c, d, e

Moving workers as a percentage of all workers in each destination sector (LHS) and number of workers (RHS) in each sector who moved for work reasons

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a Sectoral categories refer to workers’ sector of employment *after* moving, which, in some cases, might differ from the sector they were employed in *before* moving. Estimates also include people who were not employed before moving, but gained employment after moving. b Data represented by the vertical bars refer to the left‑hand side axis, and the solid line refers to the right‑hand‑side axis. c Number of workers employed in each sector is the average number for each year between 2001 and 2010. Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who moved between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. d Estimates refer to the working‑age population (15–64 years) and are population‑weighted. e Sectors are defined in appendix A.

*Source*:Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

By contrast, mining workers appear to have a greater relative propensity to move for work purposes, compared to those in other sectors (figure 5.5). This is to be expected, since many workers now employed in mining have come from other industries, in other locations (chapter 6). Indeed, those now employed in mining are more likely to have moved for work purposes than for any other reason (data not shown). These findings illustrate that, as expected, some labour has relocated in response to the growing job opportunities and higher wages associated with the resources boom.

The estimates for mining, discussed above, focus on workers moving their permanent place of residence. But an increasing number of workers in that sector have taken up job opportunities in remote areas, without needing to move to these locations permanently, under ‘Fly‑in, Fly‑out’ and ‘Drive‑in, Drive‑out’ work arrangements. As discussed further in chapter 6, the rising prevalence of these long‑distance commuting arrangements has challenged the traditional notion that geographic labour mobility entails workers changing their permanent place of residence. Viewed in this way, figure 5.5 is likely to understate the overall rate of geographic mobility of Australia’s labour force, especially within, but not limited to, mining.

Compared to that in the other sectors (except manufacturing), permanent geographic labour mobility towards the services sectors was generally low and declining throughout the 2000s (figure 5.5). In absolute terms, however, these sectors received the largest number of ‘movers’, due to their size.[[16]](#footnote-16)

## 5.2 The changing nature of work

This section looks at how the nature of work itself has evolved in ways that not only reflect broader pressures for structural change, but can also help to facilitate labour’s adjustment. Changes in the nature of work encompasses changes in the types of skill and qualification required by employers, the flexibility of workplace arrangements and the flexibility of wage‑setting mechanisms.

### Changes in skill requirements

In Australia as in most modern economies, structural change has been accompanied by an overall increase in the complexity, and hence the skill requirements, of jobs (De Laine, Laplagne and Stone 2000; Downes and Stoeckel 2006; Jorgenson and Timmer 2011). This increase had been fuelled, in particular, by advances in technology that have not only reduced demand for a number of lower‑skilled jobs, but also created new highly‑skilled ones and heightened the level of cognitive skill component of most existing ones. For example, many of the jobs that are core to today’s Information, media and telecommunications industry (such as Web developers and Network administrators) used to be rare or non‑existent. Also in recent decades, the qualifications requirements of many jobs have risen. For example, those for nurses and teachers have been upgraded from Certificate‑level to Bachelor‑level qualifications (ABS 2009), meaning that these occupations were reclassified from Technicians and trades workers to Professionals in employment statistics.

The comparative mix of skills required by each sector, and the way in which this mix has changed during recent years, is illustrated in figure 5.6. (Occupational categories are traditionally used to represent workers’ skill levels.) In general, the sectors requiring proportionally the most highly‑skilled workers (Managers and Professionals) are business services and social services. Within these sectors, these occupations together constitute at least half of the workforce. When comparing 2001 and 2010, the sector with the largest proportional decrease in its lowest‑skilled workforce (Machinery operators and drivers and Labourers) was manufacturing. This indicates that net job losses in that sector comprised mainly lower-skilled jobs.

Figure 5.6 Change in occupational composition of sectors,  
2001 and 2010a, b, c, d

Percentage of workers in each occupation, within each sector

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| This figures shows the occupational composition of each sector. The composition in 2001, which is represented by the first vertical bar for each sector, is compared to the composition in 2010, which is represented by the second vertical bar. The five broad occupational categories are managers, followed by professionals, followed by technicians and trades workers, followed by community and personal services, clerical and administrative and sales workers, followed by machinery operators, drivers and labourers. |

a For each sector, the left bar refers to 2001 while the right bar refers to 2010. Similar occupational categories have been grouped together to retain a sufficiently large sample size. From highest‑skilled to lowest‑skilled, occupations are approximately ranked in the following order: Managers and Professionals; Technicians and trades workers; Community and personal services, Clerical and administrative, and Sales workers; Machinery Operators and Drivers; and Labourers (ABS 2006a). b Agriculture is excluded because of the high proportion of owner‑managers in this industry. c Estimates refer to the working‑age population (15–­64 years) and are population‑weighted. d Sectors are defined in appendix A.

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

At the same time, within the rapidly‑growing mining sector, the proportion of workers in the lowest‑skilled occupations was expanding. This is likely to reflect the types of labour required during the construction phase of the resources boom. These observations also suggest that the boom created jobs for lower‑skilled workers who were no longer required in other industries. As discussed in chapter 6, many of the workers joining the mining sector appear to have come from manufacturing, as expected given the broad similarity of skills required.

Indeed, if displaced by structural change, workers’ capacity to transition from a contracting to an expanding industry depends on how well they can acquire the skills necessary for their prospective new job, or how well their existing skills can be applied to their new role. Some industries or occupations require workers to have a high level of specialised, firm‑specific knowledge or skills, which are inherently less transferable. A worker’s skills deficiency, therefore, represents a potential barrier to labour mobility: around 10 per cent of unemployed jobseekers who experienced difficulty finding work during the 2000s attributed this to a lack of skills or education (ABS 2012e).

### Non-traditional modes of employment

Permanent, full-time employment remains by far the most common mode of employment across the labour force as a whole (ABS 2011c; Shomos, Turner and Will 2013). Nonetheless, compared with earlier decades, non-traditional modes of employment — such as casual and part‑time employment, flexible start and finishing times, and working from home — have become more common. This trend began with the rising casualisation of the workforce during the 1980s and 1990s. Although there is clear evidence that casualisation plateaued throughout the 2000s (Shomos, Turner and Will 2013), non‑traditional modes of employment are more widely used across today’s workplaces than they were several decades ago. The increased availability of these work arrangements partly reflects demand‑side drivers of structural change. Technology, as well as changing preferences, have meant that consumers are increasingly demanding that goods and services providers extend their hours of operation beyond a standard working day, giving rise to the greater use of home‑based work and flexible start and finishing times.

At the same time, non-traditional work arrangements can facilitate the labour market’s adjustment to the changing shape of the economy. As a case in point, the greater skills demands of today’s jobs, and hence the higher importance of post‑compulsory education in today’s economy, mean that proportionally more workers are seeking employment arrangements that allow them to study while working. Forms of employment that depart from the traditional, permanent, full‑time work contract are one way to accommodate this. Non-standard work arrangements have opened-up opportunities for more people to participate in the labour force. Greater use of part‑time work arrangements, and flexible start and finishing times, have enabled more women to join the labour market, especially those with young children. Such shifts in the composition of the workforce have been associated with the expansion of the services sector, for both labour demand and supply reasons (Gilfillan and Andrews 2010; McLachlan, Clark and Monday 2002).

The prevalence of non-traditional work arrangements is not uniform across sectors. The fastest‑growing sectors tend to have a high reliance on at least one of the modes of employment identified in figure 5.7. For instance, compared to most other sectors, personal services and distribution services sectors have a high prevalence of casual and part‑time employment (especially in the Accommodation and food services and Retail trade industries), while the business services sector has a high, and rising, share of workers with flexible starting and finishing work times or entitlement to home‑based employment (especially in Professional, scientific and technical services). This is unsurprising, given that these sectors have been reliant on the growing labour force participation of women as a source of additional workers.

Of the slowest‑growing sectors in terms of employment, agriculture is characterised by a relatively high prevalence of some forms of non-traditional work. The prevalence of flexible start and finishing times, as well as of home‑based employment, may be partly associated with the high proportion of self‑employed workers and owner‑managers within the agricultural workforce. High casualisation, on the other hand, may be explained by the seasonal nature of much agricultural work (ABS 2011c).

Manufacturing, on the whole, has a lower prevalence of non-traditional work arrangements than other sectors. A possible exception is its use of labour hire, even though it is declining. Indeed, the prevalence of labour hire workers fell in most sectors during the 2000s, particularly during the 2008–10 period. This could be indicative of the effects of the GFC, with employers laying off labour‑hire and other short‑term contract workers in preference to permanent staff.

The indicators presented in figure 5.7 suggest that the mining sector offers relatively few non-traditional work arrangements. However, this figure does not capture the prevalence of another non-traditional work arrangement in this sector, namely ‘Fly‑in, Fly‑out’ employment. As discussed in chapter 6, this long‑distance commuting arrangement has been instrumental in assisting the mining sector adjust its workforce capability during the natural resources boom.

Figure 5.7 Share of workers with non-traditional work arrangements, by sector, 2001 to 2010a, g

Percentage of workers, as a share of all workers in each sector

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a Data for flexible work times, home‑based employment and labour hire are for 2002 onwards. Estimates are averaged values for the groups of years, refer to working‑age population (15–64) and are population‑weighted. b Workers do not have an entitlement to paid sick or holiday leave. **c** Excludes part‑time workers who wanted to work more hours. d Entitlement to ‘flexible start and finishing work times’ or to ‘home-based employment’ does not necessarily mean that a worker is making use of these arrangements. **e** Workers employed through labour hire company or temporary employment agency. f Agriculture and Mining are excluded from the estimates for labour hire. g Sectors are defined in appendix A.

*Source*: Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

### Decentralised wage‑setting systems

Another key aspect of labour market adjustment is the scope for employers and workers to negotiate wages and work arrangements that are not only tailored to their individual needs and preferences, but also reflect the labour market conditions of their particular industry. In recent decades, Australia’s industrial relations landscape has progressively shifted away from centralised methods of wage setting, with a rising prevalence of collective (or enterprise bargaining) agreements and individual arrangements, in place of awards‑only arrangements.

Decentralised wage setting is more responsive to different demand and supply conditions faced by different firms or industries. When pressures for change impact on the economy, any shortages or surpluses of labour that arise in a particular sector or region are signalled in the market if wages are able to adjust accordingly. In a decentralised wage‑setting environment, employers in sectors or regions with the most acute demand for labour can offer higher wages or adjust work conditions, so as to retain their existing workers or attract more workers. When wages are bid up for some types of labour, decentralisation reduces the likelihood that wage inflation pressures will be spread to other labour categories for which demand is not as strong (Banks 2011; Borland 2011; Connolly and Orsmond 2011; Lowe 2012).

Higher wages initially benefit ‘incumbents’ employed in expanding sectors or regions. However, over time, higher wages provide ‘outsiders’ with an incentive to undertake training and equip themselves with the skills necessary to fill the new jobs, and to move to the locations where the jobs are based. As a result of workers moving to take up jobs in sectors/regions offering higher wages (or better work conditions), growth in wages in these areas would be expected to moderate, while wages on offer in other parts of the economy could rise, due to greater labour scarcity. Thus, it has been shown empirically that the combination of decentralised wage setting and labour mobility can result in higher real wages for all workers, not just those in expanding sectors (Thompson, Murray and Jomini 2012; PC 2009).

While much of the reform in wage‑setting methods occurred during the 1990s (Borland 2011, 2012), industry‑specific data are difficult to obtain for the period prior to 2000. The analysis presented in this section therefore focuses on the past decade. Figure 5.8 shows the relative prevalence of the three main wage setting methods — awards‑only, collective (or enterprise bargaining) agreements, and individual arrangements — within each sector from 2000 to 2010.

Figure 5.8 Wage‑setting methods, by sector, 2000 to 2010**a, b, c, d**

Percentage of workers , as a share of workers in each sector

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a For each sector, the vertical bars represent, from left to right, 2000, 2002, 2004, 2006, 2008 and 2010. For each of these years, values are for May, except for 2008 which is for August (due to data availability). b Estimates exclude owner‑managers of incorporated enterprises. c Data are not available for Agriculture. d Sectors are defined in appendix A.

*Sources*: ABS (*Employee Earnings and Hours, Australia*, Cat. no. 6306.0; *Labour Force, Australia, Detailed, Quarterly*, Cat. no. 6291.0.55.003).

Looking specifically at some of the fastest‑growing sectors in terms of employment, the business services sector displays a strong reliance on individual arrangements (driven largely by their take-up in Professional, scientific and technical services). In the mining sector, the use of individual arrangements increased notably between 2004 and 2006, coinciding with rapid growth in the sector’s workforce size. Although the social services sector has a proportionally very low use of individual arrangements, it has made strong and increasing use of collective agreements, especially due to arrangements in the Education and training and Health care and social assistance industries. Measured differences in wage levels, by sector, are examined in more detail in the next section.

## 5.3 Signals for labour market adjustment

This section looks at three indicators that signal a need for adjustment in the labour market: job vacancies; job redundancies; and wage differentials. Essentially, these are indications that there is some imbalance between demand for and supply of labour, by sector or region. Such disequilibrium may be ephemeral, such as that caused by daily start-ups and closures of individual businesses. It may be longer‑lasting, if resulting from cyclical influences. More long-lasting still are imbalances that arise from patterns of industry expansion and contraction associated with structural change.

### Job vacancies

Persistent job vacancies could indicate that:

* available workers are not suitable to fill the jobs on offer (because, for example, they might lack the necessary skills or qualifications)
* prospective workers are not making themselves available to fill the job opportunities (for example, they might not be able or willing to move locations)
* employers are not offering sufficient incentives (in the form of wages, other components of remuneration or work conditions) for workers to take up the job opportunities on offer.

Based on ABS Job Vacancies Survey data, figure 5.9 shows the number of job vacancies reported from 2000 to 2012.[[17]](#footnote-17) For most of this period, the sectors with the largest number of job vacancies were business services and distribution services. Yet, the sector with the fastest growth in vacancies over this period was mining, followed by business services. The only sector to record a drop in the number of vacancies over the whole of this period was manufacturing. While the drop in vacancies observed in some sectors between 2009 and 2012 reflects the impact of the GFC, others appeared more resistant to this downturn. Mining and utilities and construction, in particular, recorded large proportional increases in vacancy numbers between 2006–08 and 2009–12 (figure 5.9).

Job vacancy figures, when expressed relative to each sector’s workforce size, shed further light on the relative growth of different sectors. In the February quarter of 2012, mining employed around 250 000 workers, with nearly another 10 000 jobs on offer. That is, for every 100 existing jobs in mining, another four jobs were advertised. Manufacturing, with an existing workforce of 970 000 workers, had only another 12 000 jobs on offer. That is, for every 100 existing jobs in manufacturing, only around one extra job was advertised.

Figure 5.9 Job vacancies, by sector, 2000 to 2012a, b, c

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a Data based on the number of vacancies reported quarterly, except for 2008 (based on February and May quarters only) and 2009 (based on November quarter only), due to data unavailability. Estimates are based on the annual averages using quarterly data, which are then averaged out over multiple years. b Data are not available for Agriculture. c Sectors are defined in appendix A.

*Source*: ABS (*Job Vacancies, Australia*, Cat. no. 6354.0).

Job vacancy numbers, disaggregated by state or territory, are also indicative of broader sectoral shifts in the economy (figure 5.10). Most notable are the jumps in the number of jobs advertised in Queensland and Western Australia at the height of the resources boom (that is, comparing 2003–2005 to 2006–2008).

Job vacancies, by region, are reported by the Department of Education, Employment and Workplace Relations (DEEWR) in the form of the Internet Vacancy Index (IVI). The IVI reports the number of online job vacancies for 38 regions across Australia, including specific mining areas, such as the Pilbara and Kimberley.[[18]](#footnote-18) Exemplifying the contrast between regions, between April 2010 and 2011, online vacancies increased in all regions of Western Australia and the Northern Territory, and in the central and outback regions of Queensland. The highest vacancy growth rates were experienced in the Pilbara and Kimberley, Goldfields and Southern Western Australia, South‑West Western Australia, Central Queensland, and Regional Northern Territory (DEEWR 2012d). In contrast, all other regions within Australia experienced a decline in online job vacancies during the same period. The largest rates of decline were experienced in several inland regions of New South Wales (including Bathurst and Central West New South Wales and the Blue Mountains) and in much of Tasmania (DEEWR 2012d). These data broadly accord with the Job Vacancies Survey data presented in figure 5.10.

Figure 5.10 Job vacancies, by state/territory, 2000 to 2012a, b

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**a** Data based on the number of vacancies reported quarterly, except for 2008 (based on February and May quarters only) and 2009 (based on November quarter only), due to data unavailability. Estimates are based on computing the annual averages using quarterly data, which are then averaged out over multiple years. b Data exclude job vacancies for the Agriculture industry.

*Source*: ABS (*Job Vacancies, Australia*, Cat. no. 6354.0).

### Job redundancies

Examining patterns of job redundancies, by workers’ previous sector of employment, can help to identify those parts of the economy that are shedding jobs for reasons related to structural change.

During the 2000s, the sector that shed the largest proportion of its workforce due to redundancies was manufacturing (figure 5.11).[[19]](#footnote-19) The next highest redundancy rates were experienced in utilities and construction and business services (especially in Rental, hiring and real estate services within the latter). In contrast, social services had, by a considerable margin, proportionally fewer redundancies than the other sectors. This was particularly due to the low redundancy rates in Health care and social assistance — the industry with the most rapidly growing workforce during the 2000s.

Figure 5.11 Share of workers in each sector made redundant or fired,  
2001 to 2010a, b, c, d

Percentage of workers , as a share of workers in each sector

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a Number of workers made redundant or fired, as a share of all workers in the sector. Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who were made redundant or fired between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. b Agriculture and Mining are excluded due to low sample count and high standard errors associated with these estimates. c Estimates refer to the working‑age population (15–64 years) and are population‑weighted. d Sectors are defined in appendix A.

*Source*:Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

Even though these broad trends accord with the broad traits of structural change over the 2000s, the impact of the GFC is also evident across most sectors, with a general rise in vacancy numbers between 2009 and 2012.

Although the data for the Agriculture and Mining industries are not presented (due to small sample counts and high standard errors), indicative estimates for Agriculture suggest that redundancy rates were highest between 2003 and 2007, coinciding with the drought that affected much of Australia’s rural areas. This demonstrates how workers’ involuntary departures from a sector can be triggered by external shocks to the economy, such as natural disasters. For Mining, indicative estimates suggest that, unsurprisingly, redundancy rates dropped to their lowest during the resources boom.

Turning to job redundancies in each state, the effects of the boom are evident, with Western Australia generally having the lowest redundancy rates (out of all the states under analysis) during the early and mid‑2000s (figure 5.12). However, the Western Australian job market still appeared volatile, with many of these workers later losing their jobs as the resources boom temporarily subsided and the GFC took hold.

Figure 5.12 Share of workers in each state made redundant or fired,  
2001 to 2010a, b, c, d

Percentage of workers , as a share of all workers in each state

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a Estimates are averaged values for three pairs of consecutive years, for example, ‘average 2001–2002 to 2003–2004’ refers to workers who were made redundant or fired between 2001 and 2002, between 2002 and 2003, and/or between 2003 and 2004. b Tasmania, Northern Territory and Australian Capital Territory are excluded due to low sample count and high standard errors associated with these estimates. c Includes workers of all industries (including industries excluded from figure 5.11). d Estimates refer to the working‑age population (15–64 years) and are population‑weighted.

*Source*:Productivity Commission estimates using HILDA Survey 2001–2010 Unconfidentialised Release 10.1.

Figure 5.13 profiles people no longer in the workforce but who were looking for work in 2010‑11, according to their previous sector and occupation of employment. In terms of sector, most were last employed in either distribution services (mainly Retail trade) or social services (mainly Health care and social assistance). In terms of occupation, the majority were last employed as Community and personal service workers, followed by Machinery operators, drivers or labourers.

Figure 5.13 Persons wanting paid work, by previous sector or occupation, 2010‑11a, b

Per cent of all jobseekers, as a share of all jobseekers

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a Data collected during 2010‑11 financial year. Includes unemployed persons who were actively looking for work (classified as ‘unemployed’) and persons who wanted paid work even though they were not actively looking (classified as ‘not in the labour force’). Share across all sectors, and across all occupations, sum to 100. b Sectors are defined in appendix A.

*Source*: ABS (*Barriers and Incentives to Labour Force Participation, Australia*, Cat. no. 6239.0).

The shares in figure 5.13 partly reflect the relative size of each sector and occupational category within the total workforce. When scaled according to each sector’s or occupation’s respective share of total employment (figure 5.14), those who were previously employed in manufacturing, distribution services or personal services (in particular, Accommodation and food services and Retail trade) or in lower‑skilled occupations (particularly Sales workers and Labourers) were over‑represented in the total pool of jobseekers. This reflects some of the ongoing shifts associated with structural change — including the sectoral decline of manufacturing and the rising skills requirements of most jobs. The scaled jobseeker figures also reflect the high degree of staff turnover that is a feature of some industries such as personal services.

Figure 5.14 Persons wanting paid work, by previous sector or occupation, relative to sector or occupation size, 2010‑11a, b, c

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a Data collected during the 2010‑11 financial year. Includes unemployed persons who were actively looking for work (classified as ‘unemployed’) and persons who wanted paid work even though they were not actively looking (classified as ‘not in the labour force’). b ‘Relative proportions’ represent the number of persons who were ‘unemployed’ or ‘not in the labour force’, according to their previous sector or occupation, relative to each sector’s or occupation’s share of total employment (for August 2010). A ratio greater than 1 indicates that the sector or occupation is over‑represented among persons who recently left employment and wanted paid work, relative to its workforce size (and vice versa for a ratio less than 1). c Sectors are defined in appendix A.

*Source*: ABS (*Barriers and Incentives to Labour Force Participation, Australia*, Cat. no. 6239.0).

On the other hand, those previously employed in the mining, utilities and construction sectors, or as Managers, Technicians or Trades workers, were under‑represented in the total pool of jobseekers. This is, in part, evidence of the strong demand for some categories of worker due to the resources boom.

### Wage differentials

As discussed in a preceding section, industry (or regional) wage differentials — underpinned by decentralised wage-setting systems — play an important role in structural adjustment. Along with job vacancies and redundancies, these differentials signal to workers where they are valued relatively more (or less) highly in the labour market. Higher relative wages provide workers with an incentive to change jobs and/or locations, as long as their consumption costs, such as housing, would not rise more than proportionately with wages, following a move (Kent, Smith and Holloway 2005).[[20]](#footnote-20) The incentive effect of higher wages is evident in findings that workers:

* who change their job experience a higher gain in wages than those who stay in the same job (Wilkins and Warren 2012; Wilkins et al. 2011)
* are more likely to switch industries if they are from a lower‑income household (Berger‑Thomson and Roberts 2012).

The difference in nominal wage levels between different sectors of the Australian labour market over recent decades is illustrated in figure 5.15. The mining sector stands out, not only as being consistently the highest‑paid sector (reflective in part of the wage premium associated with the hazardous and remote nature of much mining work), but also as having the fastest‑growing wage level of all sectors over the last decade. This recent wage growth coincides with the rapid expansion of the mining sector’s share of employment. By contrast, during the same period, wage levels in manufacturing, personal services and distribution services were generally the lowest of all the sectors, and also grew at the slowest pace. With the exception of distribution services, these sectors were also among those with the weakest growth in their employment shares in recent years (table 4.1 in chapter 4).

Figure 5.15 Nominal hourly wage, by sector, 1995 to 2012**a, b, c, d**

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a Nominal hourly wages are based on the ordinary time earnings of full‑time workers, who are assumed to work a 38‑hour week. Wage data exclude overtime and bonuses. b Data are not available for Agriculture.  
c To compute the average wage for each sector, the average wage of each industry within the sector is weighted by the industry’s respective employment share of the sector. d Sectors are defined in appendix A.

*Sources*: ABS (*Average Weekly Earnings*, Cat. no. 6302.0; *Labour Force*, Cat. no. 6202.0).

The dispersion in sectoral wage levels has widened over time, even when the acceleration of wages in the mining sector from 2005 onwards is discounted. In part, this growing dispersion is likely to reflect the widening gap in the growth rates of employment and output between the sectors, aided by the labour market’s overall shift towards more decentralised wage‑setting instruments (as discussed earlier in section 5.2). Differences in the use of wage‑setting instruments across sectors could also play a role (figure 5.8).[[21]](#footnote-21)

1. See appendix C for more information about the HILDA Survey dataset used in this chapter’s analysis. [↑](#footnote-ref-1)
2. In this chapter, industries have been classified into eight sectors, as explained in appendix A. [↑](#footnote-ref-2)
3. This refers to the shrinking workforce shares of the agriculture and manufacturing sectors, and expanding workforce shares of segments of the services sector (especially the Professional, scientific and technical services and Health care and social assistance industries) over recent decades (figure 4.7 in chapter 4). [↑](#footnote-ref-3)
4. The 2010 ABS survey data on labour mobility refer to individuals’ employment at February 2009 and February 2010. [↑](#footnote-ref-4)
5. This net loss only explains part of the decrease in the agricultural share of employment. Other contributing factors were the movement of workers between sectors and the net loss or gain experienced by other sectors beside agriculture. (Mobility between sectors is discussed below.) [↑](#footnote-ref-5)
6. This is illustrated by the large values in the top panel of figure 5.2 (movements into employment) exceeding the similarly large values in the lower panel (movements out of employment) for most of the year groupings pertaining to that sector. [↑](#footnote-ref-6)
7. The terms ‘natural resources sector’, ‘resources sector’, ‘mining sector’ and ‘Mining industry’ are used interchangeably in this supplement. Appendix A provides a definition of the natural resources sector. [↑](#footnote-ref-7)
8. D’Arcy et al. (2012) calculate that, from 2001 to 2010, the total cumulative number of new entrants into employment in mining exceeded that of workers joining the sector from other industries. However, their estimates of new entrants include newly-arrived skilled migrants, by construction. The datasets used to track the movements of workers — such as HILDA — generally cannot capture the employment activity of newly‑arrived or newly-departed migrants. [↑](#footnote-ref-8)
9. This finding is consistent with similar analysis conducted by the RBA using HILDA data from 2001 to 2007 (Berger-Thomson and Roberts 2012). [↑](#footnote-ref-9)
10. These estimates include workers who changed sector even though they did not change employer. This form of mobility can occur for a number of reasons: workers employed through labour hire or temporary employment agencies retain their employment agency but are appointed to work in a different industry; workers engaged as independent contractors change industries but do not report changes of employer because they are considered to be working for themselves; or workers are employed by firms that have been reclassified to another industry. The latter event can occur when firms: restructure; are taken over or merge; move some of their activities offshore; or perform an activity that gets reclassified by the ABS. Estimates of the prevalence of firm inter-industry movements are presented in appendix C. Another study of labour mobility (D’Arcy et al. 2012) assumed that a worker’s change of sector or industry must also entail a change of employer or job, resulting in an average inter-industry rate of labour mobility of 8 per cent during the 2000s (lower than that implied by figure 5.3, therefore). [↑](#footnote-ref-10)
11. These estimates include workers who changed their job multiple times within a year, as well as those who held multiple jobs at the same time. [↑](#footnote-ref-11)
12. Estimates for later years of the survey, however, could be partly affected by attrition bias in the sample (appendix C). [↑](#footnote-ref-12)
13. Underemployed workers refer to workers who are employed but seeking, and able to work, more hours. This group mainly includes part-time workers who would prefer to work more hours, plus some full-time workers who did not work full-time hours in the reference week of the survey due to economic reasons (including because they were made redundant or because there was insufficient work available for them). [↑](#footnote-ref-13)
14. The ABS defines a suitable job as ‘any job for which the person is qualified (if applicable), is capable of performing and which provides adequate job conditions (including pay, hours, travel to work, etc.)’; and which is ‘a job that would be accepted by the person irrespective of whether a move was required’ (ABS 2012j, p. 44). [↑](#footnote-ref-14)
15. For example, manufacturing workers changing jobs are less likely to have to relocate, compared to mining workers. As an indication of the high geographic concentration of manufacturing activity in Australia, in 2011, around 20 per cent of all manufacturing workers were based in Melbourne or Geelong, and a further 17 per cent were based in Sydney (ABS 2011b). [↑](#footnote-ref-15)
16. The total number of workers in each sector who moved location for work purposes in any given year (averaged for all years between 2001 and 2010) is measured on the figure’s right‑hand side axis and is denoted by the thin black line. [↑](#footnote-ref-16)
17. The Job Vacancies Survey provides a quarterly estimate of the number of job vacancies in the labour market, based on a survey of a sample of approximately 5000 employers. The survey defines a vacancy as a job which is available for immediate filling during the reference period and for which the employer has taken recruitment action. Data on job vacancies are collected on a single day within the quarterly reference period. [↑](#footnote-ref-17)
18. DEEWR’s Internet Vacancy Index is a monthly count of online vacancies newly lodged on the following online search engines: SEEK, My Career, CareerOne and Australian JobSearch. The regions are DEEWR’s own classification (DEEWR 2012d). [↑](#footnote-ref-18)
19. The estimates include workers who were fired from their job, which is more likely to be due to workers’ unsuitability for the job rather than structural change. However, it is assumed that firing rates are similar between the sectors and over time. This means that relative differences between the sectors, and trends over time, are not distorted by the inclusion of fired workers in the statistics presented. [↑](#footnote-ref-19)
20. More precisely, it is a difference in the *consumption wage —* the wage rate expressed in terms of the consumption goods and services that the wages are used to purchase — available to a worker that would be expected to influence a decision to relocate. Conversely, differences in the *product wage* — the wage rate expressed in terms of the price of outputs — indicate a difference in the value of an employee to an employer, and will, therefore, influence hiring decisions. [↑](#footnote-ref-20)
21. Across all industries, average earnings are consistently higher for employees on collective agreements or individual arrangements, compared to those whose wages are set by awards only (ABS 2010a). [↑](#footnote-ref-21)