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Oslington, Paul and Freyens, Ben

University of NSW

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Dismissal Costs and their Impact on Employment: Evidence from Australian Small and Medium Enterprises*

BENOIT FREYENS AND PAUL OSLINGTON

School of Business, University of NSW/ADFA, Canberra, Australia

The influence of labor market regulation on employment and other macroeconomic variables is intensely debated across the OECD. In Australia the focus is currently on the employment impact of proposed changes to unfair dismissal provisions. There is surprisingly little research on the magnitude and structure of dismissal costs and this paper presents new data from a major survey of small- and medium-sized Australian enterprises. Dismissal costs are compared for different types of separations, including redundancy, uncontested fires and complex fires. Using the data and a simple labour demand model we estimate the employment impact of the proposed unfair dismissal changes, which we find likely to be modest.

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Correspondence: Benoit Freyens, School of Business, UNSW/ADFA, Northcott Drive, Canberra, ACT 2600, b.freyens@adfa.edu.au. Paul Oslington, School of Business, UNSW/ADFA, Northcott Drive, Canberra, ACT 2600, p.oslington@adfa.edu.au.

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1. Introduction

The impact of hiring and firing costs on labor markets has been intensely debated across the OECD in recent years. In Australia the focus is currently on the impact of proposed changes to unfair dismissal provisions on employment. The Australian government has claimed unfair dismissal provisions are a significant disincentive to firms taking on workers, and that this is especially so for small businesses. Removing unfair dismissal protection for employees of small and medium businesses is claimed to be the key to reducing unemployment below 5%, and a figure of 77, 000 new jobs has been widely quoted as the employment impact of exempting small business from unfair dismissal provisions.

However, in spite of the importance of the issue and intense debate we have little direct evidence about dismissal costs. How large are they? What are the main components of the costs and their relative magnitudes? How do they vary across industries and occupations? Does the size of the firm matter? Finally, what impact do dismissal costs have on employment, and what is the likely impact on employment of the proposed changes to unfair dismissal laws?

There is a rich theoretical literature on the economic impact of dismissal costs¹. How might dismissal costs affect employment? Consider a profit maximizing firm that uses labor to produce output, which it sells at a price which varies over time depending on market conditions. Assume for simplicity that the wage is fixed and the firm can costlessly hire and fire workers. When economic conditions (and prices) are improving, the value of the output produced by workers rises and the firm hires more workers, and vice versa in economic downturns. If we now introduce separation costs, such as unfair dismissal provisions, the firm will only fire if the gap between the wage and the expected value of the worker's output exceeds the dismissal cost. Dismissal costs thus reduce firing during downturns, but also reduce hiring during upturns (as firms foresee conditions will not always remain good and they will incur dismissal costs in the future). The net effect of higher dismissal costs on employment is ambiguous and depends on business cycle parameters (flatter and longer cycles reduce probability of firing and hence the impact of dismissal costs on employment), discount and quit rates (higher rates reduce the expected present value of these costs and hence the impact), uncertainty about future conditions (a higher probability of random shocks, or larger random shocks, increase the impact), and so on². This ambiguity, identified by the work of Bentolila and Bertola (1990), has made researchers skeptical about large employment impacts of dismissal costs (Nickell and Layard 1999).

¹ See for instance recent surveys by Hamermesh and Pfann (1996), Bertola (1999), Nickell and Layard (1999) and Addison and Teixeira (2003). A fuller survey by the authors: "The Impact of Hiring and Firing Costs on Labour Market Outcomes" is forthcoming.

² There is also an effect through wages, as dismissal costs give incumbent workers market power, allowing them to bargain higher wages. Further discussion and a model may be found in Oslington (2002).

The key to resolving the employment impact of dismissal costs is data on the magnitudes of these costs, which is surprisingly scarce. Empirical investigations of the impact of these costs usually resort to vague and arbitrary proxies for the value and structure of these costs in order to parameterize dynamic labor demand models³. Some authors obtain a numerical value for the costs but these are typically based on counterfactual experiments or inference from legislation, not on hard data. Only a few studies directly measure the costs. Del Boca and Rota (1998) present estimates of costs from a survey of 65 Northern Italian manufacturing firms. In Australia, Button (1990) and Abbott et al. (1998) study particular firms in depth, but it is difficult to generalize about dismissal costs from case study work.

This paper contributes to our knowledge of dismissal costs by presenting estimates of the costs from a large scale survey of small-and medium-sized Australian enterprises conducted in 2004. We report on some of the difficulties of survey methods, and as one of the first such exercises we hope the survey techniques and definitions of the various types of separations and cost components will be useful to other researchers. We calibrate a simplified labour demand model with our new data on dismissal costs, along with existing data on job tenure, separation probabilities, and labor demand elasticities from the literature. This exercise generates bounds for the employment impact of the dismissal costs as a whole, as well as the specific changes to unfair dismissal laws currently under consideration in Australia.

The next section describes the survey methods and sample. Sections 3 and 4 present and discuss our survey estimates of the size and structure of costs of dismissals for cause, and redundancies. Section 5 compares our results to the limited international evidence on the costs. Section 6 contains our estimates of the employment impacts, and section 7 conclusions.

2. Survey Characteristics

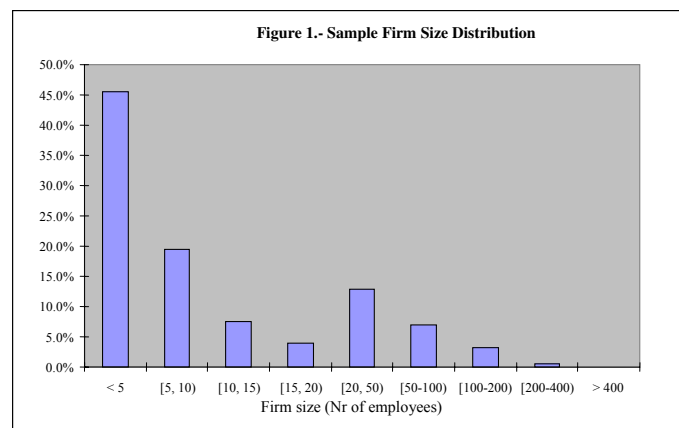
There are no standard definitions and terminology for dismissal costs. It is an area the Australian Bureau of Statistics, along with other countries' statistical agencies, has neglected. France is the only country we are aware of that collects (limited) dismissal cost data.

³ For instance, Lazear (1990) uses the mandatory severance pay for a blue collar with ten years of service found in legal texts. Pfann and Verspagen (1989) use firms' reported "total costs of reorganization". Abowd and Kramarz (2003) use outlay data from French wage surveys. Hamermesh (1989), Hamermesh (1995) and various others infer with limited success an order of magnitude from macro data. Grubb and Wells (1993), OECD (1999) and Botero et al. (2004) derive ordinal scales from legal provisions for inter-country comparisons. Harding (2002), Robbins and Voll (2004) and Di Tella and MacCulloch (2004) work with qualitative employer surveys.

Definitions for our study were established through a pilot survey in Canberra in 2002, trial interviews with businesses in Melbourne and Geelong, and focus groups with human resource professionals from the Australian Human Resource Institute (AHRI) and Australian Chamber of Commerce and Industry (ACCI) in 2003. In the study we distinguish between redundancies (or equivalently retrenchments) which are involuntary separations for reasons to do with market conditions, and fires (or dismissals for cause) which are for reasons to do with the individual worker, such as poor performance or misconduct. Voluntary separations such as quits and retirements were not surveyed. We consider both full-time and part-time employees, but not casual employees and contractors.

The survey consisted of telephone interviews conducted in 2004 with a sample of 1800 small and medium enterprises from the Sensis® Business Index. These firms represent a workforce of 33,356 full and part time employees. The survey obtained 1438 responses for general questions. Of these firms 208 had retrenched workers over the last five years and 597 had fired workers (439 not disputed, 121 resolved through conciliation, and 38 arbitrated by courts)⁴. These figures are net of zero responses, which were removed.

Firms in our sample range in size from very small enterprises with no employees (less than 1% of the sample) to enterprises with over two hundred employees (about 2%). Firm in our sample are small, with, almost all less than 100 employees, as indicated by figure 1,



Our sample includes eleven Australian and New Zealand Standard Industrial Classification (ANZSIC) sectors of activity (manufacturing and most services, but not agriculture) which account for 78 percent of total employment. It includes the nine major occupational groups of the second edition of the

⁴ The exact number of retrenchment and fires experienced by respondents over the recall period is unknown but is necessarily equal or superior to the numbers reported. Compared to ABS statistics, these numbers appear high, even for a recall period of five years. Respondents may have provided data for earlier recall years.

Australian Standard Classification of Occupations (ASCO). For the purposes of the survey these were grouped into six groups, which were reduced for analysis to five by combining professionals and managers/administrators, as in many small and medium enterprises the distinction between professionals and managers (in the ASCO sense) is blurred, which was borne out in survey responses. The groups were ranked by skill, allowing us to consider whether it costs more to fire skilled workers.

In our sample, clerks, tradespersons and laborers were made redundant in relatively higher proportions than professionals and machine operators. Within industries, redundancies are more concentrated than dismissal for cause. Industries with high redundancy rates are retail, manufacturing and construction. Accommodation and retail trade stand out with relatively large ratios of dismissals for cause while manufacturing, construction and transport registered lower ratios.

The sample represents all Australian states. Queensland, Victoria and New South Wales each account for one sixth of the sample, South and Western Australia about an eighth each, while samples from the Northern Territory, the Australian Capital Territory and Tasmania are small. About three quarters of respondents are based in urban areas.

3. The Costs of Dismissal for Cause

Institutional Context

Dismissals for cause, or fires, are involuntary terminations for reasons specific to the employee. They are considered *fair* dismissal if for unsatisfactory performance, absenteeism or serious misconduct. Proper process must also be followed for dismissal to be considered fair. For other cases the law distinguishes between *unlawful* dismissal, which refers to situations where employees are dismissed without required notice provisions, warnings or explanation or for discriminatory reasons, and *unfair* dismissals, which are lawful terminations deemed “harsh, unjust or unreasonable”.

Employees who consider themselves unfairly dismissed can lodge a claim with the Australian Industrial Relations Commission (AIRC), or corresponding State bodies. There are some differences, for instance, although the Commonwealth and most States put a salary cap (ranging between \$75,000 and \$90,000) on the capacity to lodge an unfair dismissal claim, Tasmania does not. Western Australia and Tasmania also allow casuals workers to lodge unfair dismissal claims. Overall though, the differences are not large, Victoria and the two Territories follow the same laws as the Commonwealth. All States cap compensation benefits to 6 months. At the Federal level the relevant legislation is subsection 170 CE of the *Workplace Relations Act 1996*, which was targeted for reform by the

proposed *Workplace Relations Amendment Bill (Fair Dismissal) 2004*. Further changes have been announced by the Federal Government, but their exact form is not yet clear.

Claims brought in 2003 to the courts numbered 15,523 (comprising 6,954 Federal and 8,299 State), down from a total of 21,281 in 1996 (Senate Committee, Hansard, 14 June 2005). These claims may be resolved through conciliation, which happens in about three quarters of cases, and further cases are withdrawn or settled in the period stretching between conciliation and arbitration. Although the number of Federal unfair dismissal claims steadied around 7,500 in recent years, fewer and fewer unfair dismissal claims are being arbitrated by the AIRC each year (552 cases in 2001-2, 482 in 2002-3, 429 in 2003-4). Ruling out cases dismissed on jurisdictional grounds or due to time lapse, dismissed employees obtained compensation payments and or reinstatement in just under half the cases arbitrated by the AIRC (AIRC 2004). This positions Australia in the middle ground between countries whose courts tend to be employee-friendly (France, Spain, Sweden, Germany) and employer-friendly (UK, Ireland, Austria)⁵.

Costs of Dismissals for Cause

Three types of fires (dismissals for cause) were investigated in the survey;

- (i) uncontested dismissals, for which we obtained information on time spent by management on the firing process and other administrative costs,
- (ii) dismissals settled through conciliation, which involved additional administrative and legal costs and sometimes a settlement payment,
- (iii) dismissals which went to arbitration, which involved still further administrative and legal costs, as well as compensation and reinstatement costs if the case were lost by the employer.

The time and administrative costs generated by the employment termination decision are common to all three situations, but are only recorded for (i) and assumed of comparable magnitude for (ii) and (iii), for which we recorded the additional costs of conciliation or arbitration.

Overall, the survey data indicate that the average cost of an uncontested dismissal is \$3,044 which represents 10.3 percent of annual wage cost. The average total cost of a contested dismissal settled

⁵ See Bertola et al. (2000) for evidence on disparate employment protection enforcement across countries.

through conciliation is \$12,817 or 27.8 percent of annual wage cost, and for a dismissal requiring arbitration \$14,705 or 35.7 percent of annual wage cost⁶.

The following sections will examine the components and patterns by industry, occupation and firm size of these costs.

Most of the results on the cost of dismissal are presented relative to the annual wage cost rather than as an absolute dollar cost. Reasons for this are: (i) many separation costs components such as time cost, compensation or severance payments, notice paid in lieu, are actually expressed in terms of wages, (ii) the profit maximizing firm's dismissal decision hinges on a comparison between dismissal costs and wage savings, (iii) it is convenient for comparisons, including comparisons across industries and skill groups with different wage levels, and across countries. Wage cost data were obtained from the Australian Bureau of Statistics, ABS (2002a) and ABS (2001b), and comprises base pay, payment by measured result and overtime pay for full time and part time employees. The wage data was weighted by the share of each job occupation and industry in total employment to provide average wage rates by skill and industry, which were then adjusted to reflect the influence of firm size on wages using data on earnings by employer size from ABS (2002a).

(i) The costs of uncontested dismissal decisions

The average cost of an uncontested dismissal is \$3,044 which represents 10.3 percent of annual wage cost and comprises: time spent writing warnings, obtaining managerial and legal advice, gathering evidence and documenting the dismissal decision, meeting with the employee to guarantee her right to respond to the charges, and meeting with union delegates. It may also include the time originally needed to take a decision with respect to poor performance or misbehavior. Time spent is valued by management's wage.

Figure 2a presents a histogram of the cost of uncontested dismissal decisions. As expected, the distribution is strongly skewed to the left and a majority of firms incur administrative and time dismissal costs below \$1,000.

Figure 2b shows the relationship between the time and administrative costs associated with uncontested dismissals and firm size. Costs appear insensitive to firm size.

⁶ Reporting units are different for each type of dismissal situation and therefore have a different underlying wage structure (including weights for differing firm size, skills and industry coverage). Hence there is no equivalence between absolute and relative costs across types of dismissal costs.

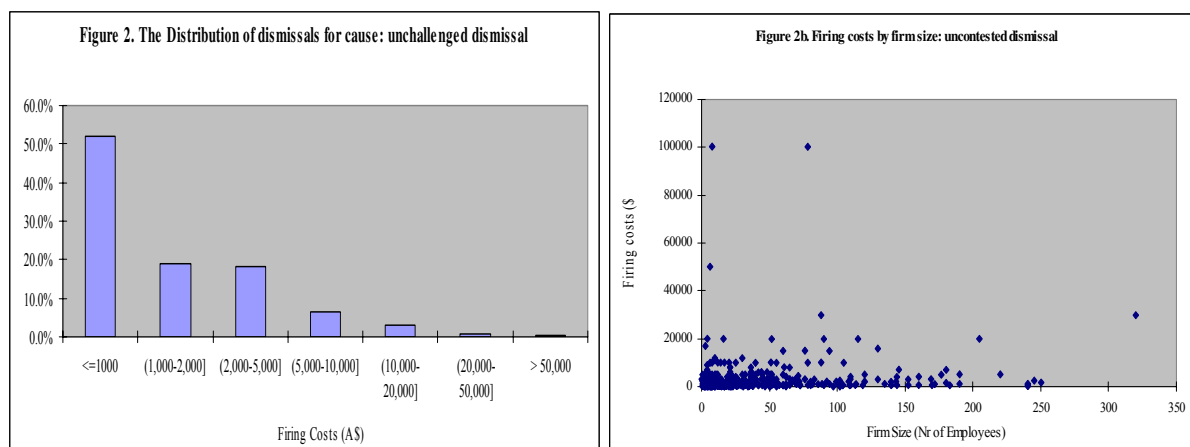


Table 1 provides the costs by occupation and industry.

Table 1. Time and administrative costs by skill and industry, relative to annual wage cost						
Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	<i>All job occupations</i>
Manufacturing	42.2%	3.2%	8.3%	4.4%	11.5%	19.0%
Construction	3.7%	4.6%	2.7%	11.8%	5.0%	4.6%
Wholesale Trade	17.5%	1.4%	9.5%	4.8%	6.9%	9.8%
Retail Trade	19.5%	8.5%	5.0%	0.6%	15.3%	11.9%
Transport - Storage	5.0%	0.1%	18.0%	1.0%	7.5%	7.0%
Communication - Prop.	8.9%	2.9%	8.0%	3.8%	13.7%	8.0%
Finance - Insurance	70.8%	:	15.8%	:	:	49.4%
Health	2.2%	2.8%	6.7%	4.2%	1.2%	3.3%
Culture - Recreation	5.0%	3.1%	1.0%	4.7%	1.8%	3.2%
Accommodation	5.7%	4.5%	2.6%	:	3.0%	3.8%
<i>All Sectors</i>	<i>17.5%</i>	<i>3.4%</i>	<i>7.7%</i>	<i>4.6%</i>	<i>8.6%</i>	<i>10.4%</i>

There is a pattern of unchallenged dismissals being relatively more costly for white collar than blue collars workers. This is particularly the case for some sectors such as finance, manufacturing, wholesale and retail trade, communication and property and business services. Dismissal of professionals costs on average twice as much in time and administrative costs as for clerks and laborers, and three to four times as much as for tradesmen and machine operators and drivers.

We have reservations on three outliers: a figure of \$100,000 both in finance and wholesale trade, and a figure of \$50,000 in manufacturing, all for professionals or managers. These outliers are puzzling for the cost of uncontested dismissal decisions, and may include other costs than those stipulated in this section of the survey. On the other hand, firing highly skilled employees may involve considerable time valued by high senior executive wages. Also, many managers and professionals may not qualify for unfair dismissal procedures due to the salary cap, which may lead to specific and costly dismissal agreements with management. In the absence of any other information the data was kept. However,

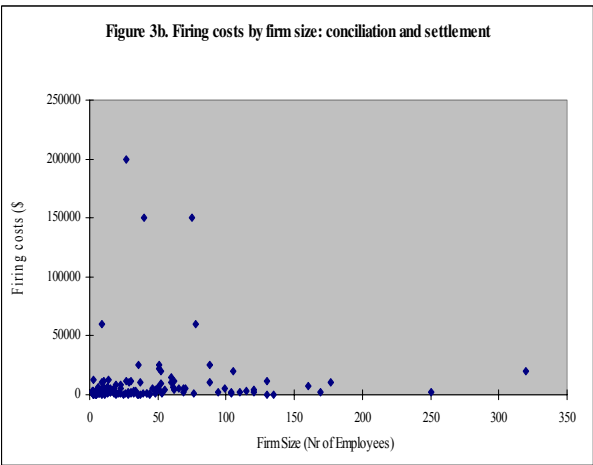
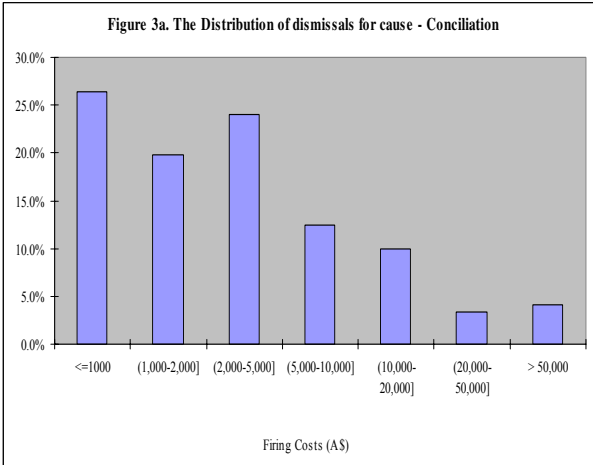
reclassifying these as conciliated or arbitrated dismissals in the analysis considerably reduces time and administrative costs in finance from 49.4 % to 9.2 %, in wholesale trade from 10.6 to 7.1% and in manufacturing from 19 % to 7 %. The overall time and administrative cost falls from 10.4 to 6.5% of wage cost. Our estimates of conciliation or arbitration costs would also be expected to increase.

(ii) Cost of conciliated and settled dismissals

Conciliation and settlement costs average \$9,780 which is 17.1 percent of annual wage costs. These costs include the time cost of the conciliation process, the cost of obtaining legal advice, and any settlement payment to the dismissed employee. Adding this to the time and administrative cost (assumed the same as for an uncontested dismissal) gives an average total cost of a dismissal challenged by the employee but settled prior to court arbitration of \$12,818 which is 27.7 percent of the annual wage cost⁷.

Figure 3a presents the relative frequencies found for conciliation and settlement costs. It is strongly skewed with the median at \$2,500 four times smaller than the mean, indicating that most cases settled through conciliation end with no payment or a small payment.

Figure 3b indicates that relatively small firms paid the highest settlement payments, but there is no statistically significant strong relationship between payments and firm size.



⁷ Because wages are specific to the skill/industry/firm size composition of the response for each cost component, the costs presented as proportions of annual wage cost are not actually additive, which explains the discrepancy between absolute and relative values when time and administrative costs are added to conciliation costs. The same holds for the data presented in the next sections.

Table 2 presents the skill and industry profile of conciliation costs. As with uncontested dismissals, the cost of conciliation and settlement across skills is much larger for professionals in communication, property and business services and manufacturing, than elsewhere. The average data for clerks in transport is distorted by an outlier of \$200,000. To be consistent with the handling of outlier values in other sections it was kept. Excluding it from the analysis would bring the average settlement cost for transport down to 17.1 % of annual wage cost, which in turns yields a cross industry average for clerks of 13.1 % instead of 17.6 %. The impact on total conciliation cost of removing the outlier is however minor (less than 1 %).

Table 2. Settlement costs by skill group and industry, relative to annual wage cost

Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	All job occupations
Manufacturing	33.1%	7.3%	15.3%	9.0%	13.0%	18.8%
Construction	8.1%	11.1%	12.6%	:	18.2%	11.7%
Wholesale Trade	15.0%	1.9%	9.2%	:	33.0%	14.6%
Retail Trade	5.7%	5.3%	6.3%	:	7.1%	6.1%
Transport - Storage	19.3%	:	69.2%	12.8%	8.7%	29.3%
Communication - Prop.	64.2%	15.9%	13.4%	:	20.6%	34.1%
Finance - Insurance	6.5%	:	3.2%	:	:	5.2%
Health	6.0%	:	:	:	:	6.0%
Culture - Recreation	21.4%	1.5%	19.8%	16.9%	5.8%	14.3%
Accommodation	14.5%	:	12.6%	:	4.0%	11.4%
All Sectors	24.0%	8.1%	17.6%	11.4%	14.2%	17.1%

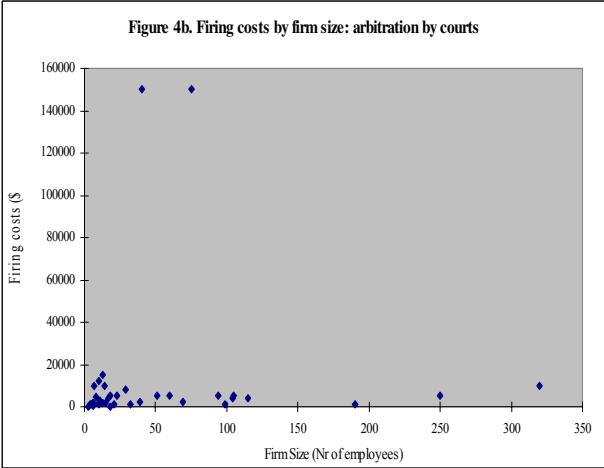
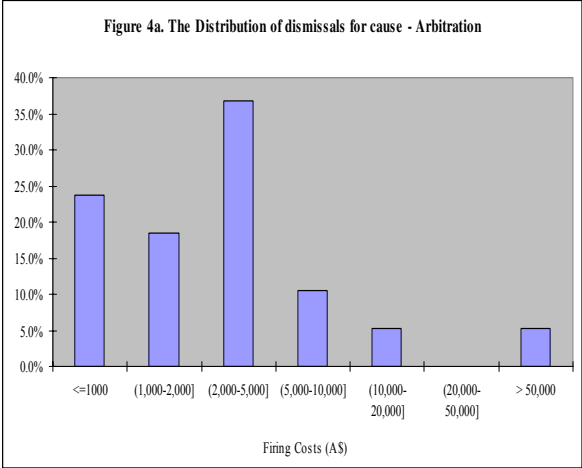
Generally speaking, the table does not portray a tendency for costs to increase in the skill level and instead follows the white-collar / blue-collar pattern found for uncontested dismissals. Laborers appear relatively expensive to settle with, while the opposite holds for tradespersons. Conciliation with professionals is much more expensive than for any other occupational group. In terms of sectors of activity: manufacturing, communication and property and business services face higher conciliation and settlement costs than other sectors (essentially because of high figures for professionals).

(iii) Cost of dismissals that go to arbitration.

The average cost associated with a dismissal challenged by the employee and arbitrated amounts to \$11,661, which is 20 percent higher than average conciliation costs, and represents 25.3 percent of annual wage cost. Adding time and administrative cost of dismissing the employee gives \$14,705 which is 35.7 percent of annual wage cost.

Figure 4a presents the histogram for dismissal costs associated with a dismissal for cause challenged by the employee and arbitrated. The median (\$3,500) stands between a third and a quarter of the mean. Again, we have reservations on two outliers of \$150,000 for managers and professionals in

manufacturing and finance. Compensation being capped to 6 months, it would take considerable legal and time costs to reach such figures. As for previous sections, outliers have been kept. Figure 4b suggests these costs are not correlated to firm size.



Of the 597 dismissals for cause, reported by firms surveyed only 38 (or 6 percent) ended up in courts, which is in line with AIRC statistics. Plaintiff success or failure was not reported in the survey, rates are not directly observable, although estimates could arguably be contrived based on thresholds for the costs reported. Doing so on the assumption that a payment greater than \$3,000 is a success yields a plaintiff success rate of about 51 per cent, which again is in line with AIRC statistics over the period 1999-2004.

Table 3 considers the patterns of arbitration costs by skill and industry.

Table 3. Arbitration costs by skill group and industry, relative to annual wage cost

Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	All job occupations
Manufacturing	138.8%	2.9%	7.5%	29.7%	9.9%	53.2%
Construction	9.0%	5.9%	:	33.3%	34.7%	17.0%
Wholesale Trade	7.6%	:	9.0%	:	9.9%	8.6%
Retail Trade	:	:	35.6%	:	:	35.6%
Transport - Storage	:	:	27.2%	:	3.7%	16.6%
Communication - Prop.	19.1%	1.5%	3.8%	:	34.7%	10.2%
Finance - Insurance	:	:	6.5%	:	:	6.5%
Health	:	:	:	:	:	:
Culture - Recreation	:	:	:	:	:	:
Accommodation	10.6%	5.0%	29.9%	:	:	14.9%
All Sectors	44.6%	3.4%	14.8%	31.2%	19.3%	25.3%

It would be interesting to test possible correlation between the skill level and the probability of winning an unfair dismissal case through court arbitration. Do the highly skilled (most of whom are highly educated) benefit more from unfair dismissal regulations than others? The survey responses do not have

enough information about the cases arbitrated to answer this question, which is left to future research. However, the average data by occupation at the bottom of table 3 suggests that costs, and hence probably compensation, is greater than for professionals and managers for other skill groups

A different question is: what are the types of workers that predominantly go to court? As table 3 indicates, all skill types are represented, but some more than others. Of the 38 court cases in our sample clerks lodged a third, laborers, machine operators and drivers another third, and tradesman and managers and professionals a sixth. The small number for professionals may indicate they are better at picking cases they are likely to win, or that concern about the stigma from a lost court case makes them keener to settle. Higher claim rates in other occupations may be also related to higher unionization rates, if unions are pushing workers to claim, and to go to court. This is unlikely to be the main explanation however as unionization rates are low in small firms which dominate our sample.

4. Redundancy Costs

Following our definitions, a redundancy (or retrenchment) differs from a fire in that it does not occur for reasons associated with the performance or behavior of the individual worker. It may be triggered for instance by a general economic downturn, the decline of a particular industry, restructuring the business, or the obsolescence of a particular type of skill due to technological change. Redundancies are in principle considered fair dismissal and the costs consist of procedural costs and severance payments.

Average total redundancy cost in the sample is \$18,900, which, once the relevant weights have been applied, amounts to 35.8 percent of annual wage cost. Redundancy costs have two components, firstly procedural cost which consists of the time spent by management selecting which workers to retrench, outplacement costs, the clerical work in notifying selected employees and working out separation packages. It also includes costs such as the time spent consulting with all the parties involved (unions, workers, government agencies etc.) and the cost of separation-related industrial disputes (such as a strike), which can be considerable when negotiations fail. On average, this procedural cost component is \$4,005 or 10.1 percent of annual wage cost. The second component of redundancy cost is severance pay and payments in lieu of notice. Severance costs were carefully defined in the survey to exclude annual leave, long-service leave, sick leave entitlements and accrued bonuses. Severance pay includes payments in lieu of notice and any extra payment made to arrange a swift and trouble-free separation. This component averages \$17,530 or 25.3 percent of annual wage cost.

Figure 5 presents the histogram of redundancy costs in the sample of firms surveyed, which is much more centrally distributed than the distribution of dismissal costs.

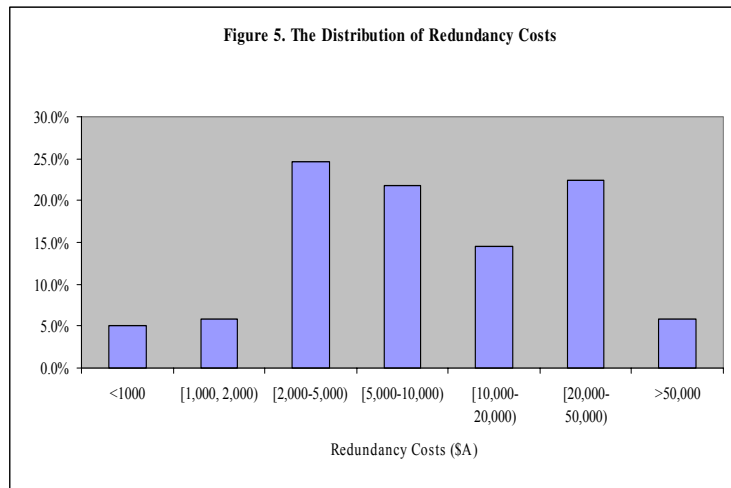


Table 4 provides information by job occupations and type of industries.

Table 4. Redundancy costs by skill group and industry, relative to annual wage cost						
Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	<i>All job occupations</i>
Manufacturing	20.4%	7.6%	135.3%	17.4%	37.8%	45.6%
Construction	23.6%	6.8%	:	16.3%	7.9%	15.3%
Wholesale Trade	83.5%	13.9%	35.4%	10.0%	34.2%	45.1%
Retail Trade	30.3%	32.4%	37.9%	:	53.1%	37.0%
Transport - Storage	90.2%	80.7%	33.4%	10.4%	:	64.2%
Communication - Prop.	30.9%	16.5%	28.5%	7.1%	:	24.4%
Finance - Insurance	60.1%	:	8.5%	:	:	40.0%
Health	26.8%	:	:	:	:	26.8%
Culture - Recreation	26.2%	:	19.7%	:	:	23.7%
Accommodation	21.5%	:	8.5%	:	:	16.4%
<i>All Sectors</i>	<i>40.1%</i>	<i>21.8%</i>	<i>52.6%</i>	<i>12.5%</i>	<i>32.8%</i>	<i>35.3%</i>

The procedural cost component varies widely. The manufacturing sector alone provided data fluctuating between \$50 (0.1% of annual wage for a clerk) and \$90,000 (over 100% for a manager). Table 5 provides a profile of procedural costs. The costs do not increase smoothly with the skill level involved, not even after separating white from blue collar occupations.

Table 5. Procedural costs by skill group and industry, relative to annual wage cost						
Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	<i>All job occupations</i>
Manufacturing	14.1%	3.4%	11.7%	6.5%	10.7%	10.4%
Construction	5.1%	2.8%	14.2%	12.2%	3.1%	6.9%
Wholesale Trade	4.2%	5.2%	5.5%	6.3%	4.1%	4.9%
Retail Trade	19.7%	19.6%	31.6%	:	41.2%	26.7%
Transport - Storage	2.7%	67.3%	16.2%	3.1%	:	20.3%
Communication - Prop.	10.0%	5.2%	9.4%	4.7%	:	8.2%
Finance - Insurance	8.1%	:	2.8%	:	:	6.0%
Health	2.7%	:	0.2%	:	:	1.7%
Culture - Recreation	5.7%	:	11.3%	:	0.6%	6.1%
Accommodation	2.4%	0.3%	0.6%	:	0.2%	1.1%
<i>All Sectors</i>	<i>8.5%</i>	<i>13.3%</i>	<i>11.5%</i>	<i>6.7%</i>	<i>10.8%</i>	<i>10.1%</i>

Table 6 provides the skill / industry cost profile of the severance payment component together with average years of service at time of retrenchment. Overall, white collar occupations are much more costly to retrench than other types of workers. Focusing on a similar range of seniority, for instance two to four years of service, one does not observe severance payments increasing in skills.

Table 6. Severance and notice payments by skill group and industry, relative to annual wage cost (Average years of service per skill group are indicated between brackets)

Industry/skills	Managers, Professionals	Tradespersons	Advanced and Intermediary Clerks	Machine operators, Driver	Elementary clerks, Laborers	All job occupations
Manufacturing	6.3% (8)	4.3% (3)	123.5% (9)	10.9% (5)	27.1% (3)	35.2%
Construction	18.5% (8)	4.0% (3)	:	4.1% (3)	4.8% (2)	10.4%
Wholesale Trade	79.3% (2)	8.7% (6)	29.9% (6)	3.7% (4)	30.0% (12)	40.2%
Retail Trade	10.6% (3)	12.8% (3)	6.3% (4)	:	12.0% (6)	10.3%
Transport - Storage	87.5% (12)	13.4% (2)	24.6% (3)	:	:	50.8%
Communication - Prop.	20.9% (4)	11.3% (3)	19.0% (4)	2.4% (1)	:	16.2%
Finance - Insurance	52.0% (4)	:	5.7% (3)	:	:	33.9%
Health	24.2% (1)	:	:	:	:	24.2%
Culture - Recreation	20.5% (10)	6.8% (2)	8.5% (4)	:	:	13.6%
Accommodation	19.1% (4)	:	7.9% (1)	:	:	14.7%
All Sectors	31.6%	8.4%	41.4%	5.7%	19.8%	25.3%

A comparison of table 6 with table 7 indicates severance payment larger than could be explained by firms paying the minimum required (based on minimum standards recently set by the AIRC). In some industries and occupations these costs are much larger than would be expected from minimum legal provisions. This may be due to factors such as employer generosity, reputation capital, union agreements above the minimum, the so-called “piss off money” referred to in parliamentary debates (eg. Hansard, House of Representative, 21 February 2002). Firms may also be renegotiated as redundancies when this can be in the interests of both parties (to avoid court costs, workers avoiding hurting future job prospects, companies avoiding damage to reputations etc) as discussed by Fella (2000).

Table 7. Federal severance and notice minimum standards, relative to annual wage cost

Years of service	Severance		Notice
	Small firms (<15)	Other firms (15+)	All firms
< 1 year	-	-	min. 2%
1 to 2 years	7.7%	7.7%	min. 3.8%
2 to 3 years	11.5%	11.5%	min. 3.8%
3 to 4 years	13.5%	13.5%	min. 5.8%
4 to 5 years	15.4%	15.4%	min. 5.8%
5 to 6 years	15.4%	19.2%	min. 7.7%
6 to 7 years	15.4%	21.2%	min. 7.7%
7 to 8 years	15.4%	25%	min. 7.7%
8 to 9 years	15.4%	27%	min. 7.7%
9 to 10 years	15.4%	30.8%	min. 7.7%
> 10 years	15.4%	23%	min. 7.7%

Source: AIRC Full Bench decision PR032004 (<http://www.airc.gov.au/fullbench/PR032004.htm>)

Note: the notice period is increased by one week if the employee is over 45 years of age and has at least two years service with the organization.

5. International Comparisons

No other comprehensive multi-firm cost studies have been conducted in Australia, but how do our estimates compare with international survey evidence? Comparisons of costs with other countries are difficult because dismissal regulations and other features of labor markets vary greatly between countries. The presumption in the US is firing for “good cause, bad cause or no cause at all”, although some States have introduced mild regulation (Autor et al. 2004). At the other end of the scale some European countries have extremely onerous notice, approval, reinstatement and payout provisions (Emerson 1988; Bertola 1990, Grubb and Wells 1993, OECD 1999).

Aside from these variations, international comparisons are hampered by a dearth of studies. The only other multi-firm study is Del Boca and Rota (1998) who analyze hiring and firing costs in 61 Northern Italian manufacturing firms. Despite different rankings in international comparisons of the strictness of employment protection Bertola et al. (2000) find little difference in 1995 between the two countries in terms of number of unfair dismissal brought to court, ratio of cases won by dismissed employees, definition of unfair dismissal and extent of reinstatement.

Del Boca and Rota (1998) report average firing costs (without reinstatement) for a representative firm employing 50 as ranging from less than half to over 20 months of labor costs, which expressed in the units comparable to our Australian survey, is between zero and approximately 14 months wage. An average unfair dismissal case lost by the employer with court order to pay compensation and reinstatement costs between 5 and 12 months wage, ie. between 42 and 100 percent of the wage cost, plus legal dispute costs. This is much higher than the average Australian values found in our survey, although expected because of Italy’s more stringent regulations.

6. Employment Impacts

As discussed in the introduction, the Australian Government has proposed exempting small businesses (initially firms employing less than 20 employees – now 100 employees) from unfair dismissal laws.

One figure quoted by the Government (when the threshold was 20) as the employment impact of this change was 53,000 jobs. This figure arose from responses to an opinion survey, the CPA (2002) Small Business Survey, in which 5% of business respondents recognized unfair dismissal laws as an impediment to hiring new staff. Assuming that each respondent would hire one extra worker if the laws were relaxed and weighing up to the population yielded an estimate of 52,575 new jobs.

The 77,000 figure frequently quoted by the Government comes from Harding (2002), a study commissioned by the Department of Employment and Workplace Relations, in which 1802 employers were surveyed through the Yellow Pages Business Index (a precursor to the Sensis® Business Index). Harding notes that a small proportion of employers nominate unfair dismissal provisions as an impediment to employing staff and, rightly in our view, argues that this does not give much useful information about their impact. To estimate the employment effect of the provisions Harding instead focuses on respondents with no employees who previously had employees, and seeks the reasons for the change. Adding up the previous employees of respondents who nominated unfair dismissal provisions as playing a major role in the change, and factoring up to the population yields an estimated employment loss of 34,812. Adding and factoring up for those who nominated unfair dismissal provisions as playing a medium to weak role yields 77,482. These figures are not nearly as prominent in Harding's report (which concentrates on human resource policies and effects on equity) as Government's promotion might suggest, nor are Harding's caveats much discussed. Harding's survey also included a question about the impact of unfair dismissal laws on business costs per year, and applying a labour demand elasticity of 0.7 suggests a negative impact on employment of 0.46 percent. If total employment is about 9 million this translates to 41,400 jobs. Harding discusses some caveats to this 0.46 percent estimate, but additionally we consider the wording of the cost question in the survey to be too general to permit reliable inference about employment impacts. The general business cost question does not ask specifically about costs of dismissal. Although a valuable study, it was not designed to address, and does not resolve, the issue of the employment impact of unfair dismissal provisions.

Another survey which suggests employment impacts is Robbins and Voll (2004), which interviews 594 small businesses in the Albury/Wodonga area, asking a number of questions about their perceptions of unfair dismissal laws. When asked for the main factor in decisions about employing staff 5.5 percent respondents nominated unfair dismissal laws. They also asked for information about costs, and obtained some responses. Their very different interpretation of respondent's opinions to previous surveys illustrates one of the problems of opinion surveys. Another is the limited reliability of qualitative information when respondents have an economic interest in the issue on which they are expressing an opinion (Boulier and Goldfarb 1998). Qualitative employer opinion surveys are not a suitable instrument for assessing levels and employment impacts of dismissal costs⁸.

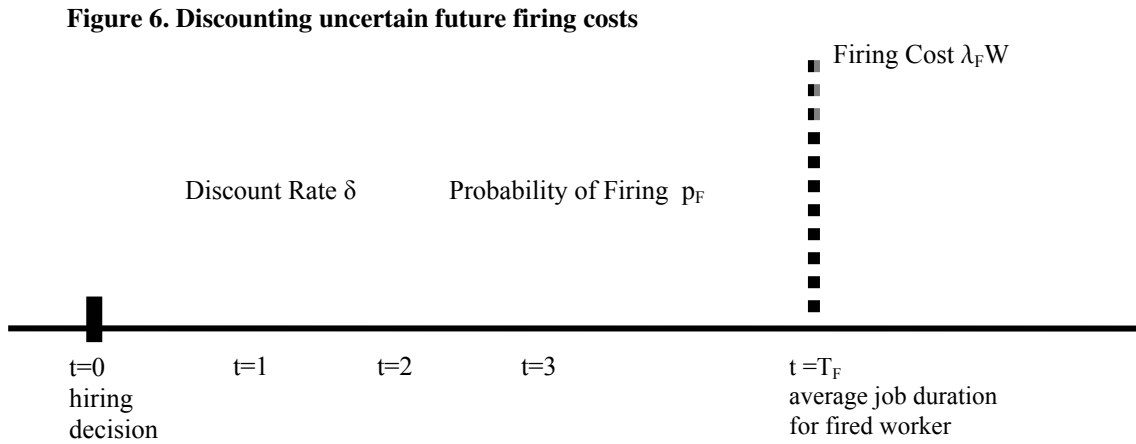
We use quantitative information about dismissal costs obtained from our survey to derive employment impacts by calibrating a labour demand model. We believe this yields more reliable estimates than other

⁸ On the erratic results of measuring the extent and impact of dismissal protection with employer opinion surveys, see Grubb and Wells (1993).

methods. The survey data on dismissal costs is combined with other publicly-available information to construct alternative estimates of the employment impact of dismissal costs, and more specifically of the impact of exempting small businesses from current Australian unfair dismissal laws. We also examine the removal of redundancy costs.

Our calibration utilises a simple model which incorporates important elements of the more complex Bentolila and Bertola (1990) and Bertola (1990) models sketched in the introduction. We focus on the employment impact of the additional labour costs which flow from unfair dismissal provisions.

In our simplified model, profit-maximizing firms will set employment to equate the marginal product of labor with the sum of the wage and the expected present value of dismissal costs. Firing costs are not incurred with certainty, and this expected present value depends on the probability that a worker will be fired, the expected duration of employment before firing, and the discount rate. Wages are taken as given by the firm. This is represented in figure 6, and retrenchment is analogous:



The expected present values of firing and retrenchment are:

$$EPV[F] = \frac{p_F \cdot \lambda_F}{(1 + \delta)^{T_F}} \bar{W} \quad (1)$$

$$EPV[R] = \frac{p_R \cdot \lambda_R}{(1 + \delta)^{T_R}} \bar{W} \quad (2)$$

where p_F and p_R are the probabilities, λ_F and λ_R denote firing and retrenchment costs relative to wages, \bar{W} is the average wage, δ is the discount rate and T_F and T_R indicates average job duration at time of dismissal.

Once the optimality condition between productivity and expected labor cost is known, the firm derives its labor demand schedule as a function of wages, output, technology parameters and the expected dismissal cost parameters described above. Restricting ourselves to the relationship between labor demand and wage cost variations permits to study the impact of legislation that increases labor cost in isolation of business cycle effects. In this case, the policy impact operates through a higher expected cost of using labor. Using expression (1) as Δw in the standard formula for the wage elasticity of labour demand (η), and rearranging yields:

$$\Delta L^D = \frac{\eta \bar{L} \cdot \left(\frac{p_F \cdot \lambda_F}{(1 + \delta)^{T_F}} \right)}{1 + \frac{p_F \cdot \lambda_F}{(1 + \delta)^{T_F}} + \frac{p_R \cdot \lambda_R}{(1 + \delta)^{T_R}}} \quad (3)$$

In which the numerator multiplies average employment \bar{L} by the discounted expected impact of the policy change and the labor demand responsiveness factor. The denominator reflects expected discounted total labor cost (stressing both the threat of future fires and retrenchments). Wages cancel on both sides of the quotient. Adding (2) for retrenchment costs yields:

$$\Delta L^D = \frac{\eta \bar{L} \cdot \left(\frac{p_R \cdot \lambda_R}{(1 + \delta)^{T_R}} \right)}{1 + \frac{p_F \cdot \lambda_F}{(1 + \delta)^{T_F}} + \frac{p_R \cdot \lambda_R}{(1 + \delta)^{T_R}}} \quad (4)$$

The employment impact of repealing employment protection laws thus emerges as a function of a few parameters for which estimates are available from our survey, ABS data, and labour demand studies in the literature. We posit plausible values for the only unknown parameter, the discount rate.

The parameter values are obtained as follows:

Retrenchment probability: $P_R = 0.137$

The ABS Retrenchment and Redundancy Survey (R&R), ABS (2001a), gives a probability of .06 for retrenchments over the three year period July 1998 - June 2001. Disregarding retrenchments due to ill health or injury and for non business related reasons and taking average employment over 1999-2000

yields a three year retrenchment probability of $469,000 / 8,913,950 = 0.0526$, giving an annual probability of retrenchment of 0.0175. This figure differs from the one presented in Borland (2000) because of significant methodological differences between the Labor Force Mobility Survey (LMS), ABS (2002b), which Borland uses, and the R&R survey. Since the R&R survey provides much more detailed data on retrenchment (including otherwise unavailable average job duration at time of retrenchment and fire, and ratio of the number of fires to retrenchments) than the LMS (which only asks about retrenchment as a reason for ceasing a job) we use the former rather than the latter⁹.

However P_R in our model is not the probability that a worker will be retrenched in any given year, but the probability that their job spell will end in retrenchment. If the annual probability of retrenchment is ap_R , of firing ap_F , quit ap_Q and retirement ap_M then the retrenchment probability rate follows a geometric progression:

$$p_R = \sum_{t \rightarrow \infty} ap_R (1 - ap_F - ap_R - ap_Q - ap_M)^{t-1} = \frac{ap_R}{ap_F + ap_R + ap_Q + ap_M} \quad (5)$$

Values for annual probabilities are derived as follow: $ap_R = 0.0175$, $ap_F = 0.004$ (explained below), $ap_Q = 0.046$ ($429.6/9,060.7$, Table 12, ABS (2002b)) and $ap_M = 0.06$ ($565.4/9,060.7$, Table 12, ABS (2002b)). Putting these figures together yields a survival rate of 0.871^{10} and a $p_R = 0.137$.

Probability of dismissal for cause: $P_F = 0.032$, $P_{FU} = 0.018$, $P_{FC} = 0.013$, $P_{FA} = 0.0004$

We use again the Retrenchment and Redundancy survey, ABS (2001a), to obtain the probability of dismissals for cause. This derives from taking figures for “retrenchments” other for than economic reasons such as “inefficiency / poor work performance, disagreement with management, too young or too old, other and don’t know”. These are dismissals for cause in our terminology. There will be some contamination from “other” and “don’t know” responses, but after consultation with the ABS it appears likely that a sizeable proportion of these “others” may be dismissals for cause¹¹. Unfortunately there is no other data on firing probabilities, and we hope our research will lead to better data being available to future researchers. Using this data gives a probability of being dismissed for cause over three years of

⁹ Estimates of retrenchment rates are not comparable between the two surveys as there are methodological differences in scope, reference period and the way the data is collected. The R&R survey collects data from persons aged 18-64, whereas the population of interest in the LMS is aged 15-69. The R&R survey has a longer recall period than the LMS. The R&R survey asks explicitly whether persons were retrenched while the LMS asks about retrenchment indirectly. However the R&R survey underestimates retrenchment with respect to the LMS because multiple retrenchments of the same individual over the three year period are reported as one (the most recent one).

¹⁰ Our survival rate matches closely the ABS employment stability rate of 0.877 for 2002 (Table 5 in ABS (2002b) excluding locality changes).

$110,700 / 8,913,950 = 0.0124$, which is an annual probability of 0.0041. Using the infinite geometric progression procedure described in (5) yields a firing probability of $P_F = 0.0323$.

A reality check of our annual probability derived from the ABS retrenchment report is provided by AIRC and State court reports. Unfair dismissal cases lodged per year amount to between 15,253 (in 2003) and 21,281 (in 1996), which is between 0.0016 and 0.0025 of employment (Hansard, Senate report, 14 June 2005), with the variation coming from differences in the number of fires and in the proportion which go to court. There have been substantial administrative changes since 1996. The 2003 figure of 15,253 unfair dismissal cases, AIRC statistics on the ratio of conciliated to arbitrated unfair dismissal cases, and the R&R 2001 survey figures of 36,700 fires per year imply an annual probability $ap_{FC} = 0.00154$ of being dismissed for cause, lodging an unfair dismissal case and settling through conciliation, and $ap_{FA} = 0.00005$ of having the case arbitrated by courts. The residual probability for uncontested dismissal is $ap_{FU} = 0.0024$. This seems low. However there are no official statistics on the ratio of contested to uncontested dismissals, again highlighting the inadequacy of existing data on dismissal. Note that our survey does not provide a probability of dismissals being contested as we only asked whether the firm fired, not the number of fires. Applying (5) to the AIRC and State court data on conciliated and arbitrated dismissals yields probabilities of $P_{FU} = 0.01876$, $P_{FC} = 0.01292$, $P_{FA} = 0.00042$.

Average tenure at time of retrenchment: $T_R = 5.8$ years

We compute average job duration from the ABS Retrenchment and Redundancy Survey 2001, excluding durations of separations for ill health and injury and all types of dismissals for cause. As in Wooden (1998), we set the average of the 20+ job duration class at 25. Average job duration implied by the years of service reported in our survey is 4.7 years.

Average tenure at time of firing: $T_F = 3.6$ years

Duration for dismissal for cause are calculated in the same way, taking the durations of identified dismissals for cause in the “other” category of the retrenchment report (ie. excluding positions “other” and “don’t know” from category Other). The ABS warns that some job duration categories have a relative standard error of between 25% and 50% and should be used with caution. The caveat affects one third of the data. Plausibly, our figure for average duration at firing is less than average duration at retrenchment, and less than overall average job duration (using earlier ABS data, Wooden (1998) reports median job duration of about 3.8 percent and average job duration of about 6.9 years, his figures include quits and retirements).

¹¹ The R&R survey is a household survey (as is the LMS). Dismissal for cause being a sensitive issue, it is more likely to be misrepresented or underreported and fall into residual categories than retrenchments.

Average redundancy cost: $\lambda_R = 0.353$; $\lambda_{RP} = 0.101$; $\lambda_{RS} = 0.253$

This is expressed as a proportion of annual wages, and comes from our survey data as explained in section 4. λ_R includes both procedural (λ_{RP}) and severance and notice costs (λ_{RS}).

Average cost of dismissal for cause: $\lambda_{FU} = 0.103$; $\lambda_{FUC} = 0.277$; $\lambda_{FUA} = 0.357$; $\lambda_{FC} = 0.171$; $\lambda_{FA} = 0.253$
 λ_{FUC} and λ_{FUA} are cumulative uncontested and challenged costs, expressed as proportions of annual wages, from section 3 of the paper. λ_{FC} and λ_{FA} are the costs of conciliation and arbitration respectively.

Aggregate employment: $\bar{L}_{1999-2000} = 8,913,950$

Taken from the ABS Labor Statistics in brief (cat. 6104.0) and covers the years 1999-2000 to be consistent with the R&R survey used for firing and retrenchment probabilities. The same figure was used with AIRC conciliation and arbitration probabilities which, despite being 2003 data, were found to vary little over the last five years.

Average annual wages: $W = \$32,698$

Taken from ABS (2002a) and weighted to reflect the relative importance of industries, job occupations and firm size in the survey. Note that this benchmark average wage is used in the expected value calculations, but cancels out of the employment impact expressions.

Discount Rate: $\delta = 0.05$

This is our (acknowledged arbitrary) required return on firm's investments, and we experiment with other values such as $\delta = 0.03$ and $\delta = 0.07$, which are standard albeit relatively conservative values for this period.

Wage elasticity: $\eta = 0.7$

Lewis and MacDonald (2002) review studies of long-run labor demand elasticity with respect to real wages in Australia, and suggest a range somewhere between -0.6 and -0.8. We experiment with the two bounds of their elasticity range, $\eta = 0.8$ and $\eta = 0.6$.

There is an issue with applying this wage elasticity to dismissal costs, as a wage increase may increase costs to the firm for many years into the future while dismissal cost is a single payment. If the wage increase due to the threat of future firing costs is a perpetuity, then it could be argued that an elasticity of η/δ rather than η should be applied to the expected present value of dismissal cost. Using an adjusted elasticity would reduce the estimated impacts of dismissal costs on employment below those we report below.

Table 8 reports the employment impact of removing all costs of dismissal for cause for all Australian firms, evaluating expression (3) in which λ_F is the average total cost of dismissal for cause weighted by the relative probabilities of facing uncontested fires, conciliated fires and arbitrated fires.

Table 8. Employment effect of all dismissal for cause costs				
$\lambda_F = \left[\frac{P_{FU}}{P_F} \lambda_{FU} + \frac{P_{FC}}{P_F} \lambda_{FUC} + \frac{P_{FA}}{P_F} \lambda_{FUA} \right]$	$\eta = 0.8$	$\eta = 0.7$	$\eta = 0.6$	
$\delta = 0.03$	34,735	30,393	26,051	
$\delta = 0.05$	32,533	28,466	24,400	
$\delta = 0.07$	30,502	26,689	22,876	

Table 9 is our estimate of the proposed changes, if applied to all firms. It assumes that time and administration costs remain, so that exempting firms from unfair dismissal legislation eliminates only conciliation and arbitration costs (which have lower probability of being incurred than the costs of uncontested fires). It is expression (3) with just these costs.

Table 9. Employment effect of conciliation and arbitration costs of dismissal for cause				
$\lambda_F = \left[\frac{P_{FC}}{P_{FC} + P_{FA}} \lambda_{FC} + \frac{P_{FA}}{P_{FC} + P_{FA}} \lambda_{FA} \right]$	$\eta = 0.8$	$\eta = 0.7$	$\eta = 0.6$	
$\delta = 0.03$	14,220	12,443	10,665	
$\delta = 0.05$	13,316	11,652	9,987	
$\delta = 0.07$	12,483	10,922	9,362	

Our estimate of 11,652 jobs average employment impact of repealing Federal and State unfair dismissal laws for all Australian firms, regardless of size, is thus well below Government estimates for more limited changes. Our estimate corresponds to about 0.1 percent of total employment in Australia. As indicated in table 9 our estimate is not greatly affected by plausible changes of the discount rate and labor demand elasticity. Also, our estimates should be seen as upper bounds because we have excluded zero cost responses (including them would reduce the average cost estimates), high cost outliers were kept, and we used unadjusted wage elasticity.

Table 10 adjusts employment impact estimates for proportions of employment affected by various possible changes to unfair dismissal laws. Employment shares for firms employing <20 workers of 36%

and <100 workers of 51%¹² are calculated from the ABS Small Business in Australia Survey, ABS (2001c), with aggregate employment from ABS (2001b). Barrett (2003) quotes a government estimate that 34 percent of workers were covered by Federal legislation in 2001.

Table 10. Employment impact of exempting different segments of the labor force from unfair dismissal legislation

	Exempt firms <20		Exempt firms <100		Exempt all firms	
	%	Impact	%	Impact	%	Impact
At Federal level only	12%	1,398	17%	1,981	34%	3,962
At Federal and State level	36%	4,199	51%	5,973	100%	11,652

The likely employment gains from removing unfair dismissal protection are thus extremely small.

In principle, the impact of removing redundancy costs components most influenced by legislation, severance pay and notice requirements, could be derived in similar fashion, as in table 11.

Table 11. Employment effect of removing redundancy costs of severance and notice

$\lambda_R = \lambda_{RS}$	$\eta = 0.8$ $\eta = 0.7$ $\eta = 0.6$		
	$\delta = 0.03$	200,692	175,605
$\delta = 0.05$	180,047	157,541	135,035
$\delta = 0.07$	161,801	141,576	121,351

“Retrenchment at will” policies, such as removing mandatory severance and notice requirements and making retrenchment procedures more flexible, would appear to have a considerably larger impact on employment than any changes to unfair dismissal regulations. Table 11 underlines how small by contrast the employment impact of unfair dismissal provisions is. However it would be irresponsible to quote these estimates as the likely impact of redundancy policy changes for the following reasons:

- (i) Redundancy payments would be likely to continue, even if no longer mandatory. Such payments existed before legislation. We found evidence in the survey of substantial payments above required

¹² This proportion obtains from dividing total employment in private non-agricultural firms (4635.6 thousand) by aggregate employment in 2000 (9043.3 thousand). Public sector firms tend to be modeled by economists as budget maximizing rather than profit maximizing and are preferably excluded from the model. Agriculture is closer to a spot market - relatively unaffected by dismissal laws - and accounts for a small proportion of national employment figures (300 thousand).

amounts, to maintain fairness and firms' reputations. This argument does not apply to our impact figures for the removal of unfair dismissal costs. Firms have few incentives to make voluntary dismissal payments for shirking and misbehavior.

(ii) Abolishing severance pay and notice requirements would decrease the discounted value of expected wages and one would expect workers to individually or collectively bargain higher wages to compensate for this shortfall. Again, this argument would not apply for the removal of unfair dismissal legislation as workers trying to negotiate higher wages on the basis of expected dismissal for poor performance would send an unhelpful signal to an employer assessing their uncertain productivity.

(iii) The interaction between redundancy provisions and bankruptcy law matters a great deal for small business, and needs to be modeled.

(iv) We have ignored the business cycle in estimating the impact of unfair dismissal provisions (which are in principle unrelated to economic indicators), but this matters a great deal for retrenchments, and needs to be explicitly modeled.

For these reasons, we believe table 11 greatly overstates the possible employment gains from "retrenchment at will" policies. The job-creating potential of such policies is left to further research.

7. Conclusions

Our study provides the first large-scale direct estimates of firing costs for Australia, and in fact the most comprehensive estimates for any country. These estimates of redundancy costs are around four to five months wage costs, and costs of dismissal for cause between one and four months wages. There is substantial variation between industries and occupations, with costs increasing in a patchy way with skill levels. We do not find much evidence of variation by firm size, suggesting that unfair dismissal provisions do not impose a higher burden on small business. Calculations using our estimates of firing costs suggest the employment impacts of removing firing costs are likely to be modest. Redundancy costs seem a bigger issue, but more complex modeling is needed to capture the full effect of their deregulation.

In relation to the existing literature our results are consistent with, but extend and generalize the small number of Australian and overseas studies of the firing costs. We do not believe our estimates are inconsistent with Robbins and Voll (2004) or a balanced reading of the CPA (2002) and Harding (2002). However, they are significantly below the most commonly quoted figures in the current

Australian debate, including those quoted by the Government. We believe these widely quoted figures overstate the scope for unfair dismissal policy changes to improve employment outcomes for Australians.

Empirical research on firing costs, and in particular research on the cost of unfair dismissal provisions, is still at an early stage. Further survey work is needed, and we also believe the Australian Bureau of Statistics should collect data on hiring and firing costs. Better data, and perhaps the calibration of more sophisticated dynamic stochastic labour demand models, would improve our understanding of the labour market impact of unfair dismissal provisions.

Impacts of dismissal costs on employment are currently politically sensitive in Australia, and associated with a number of other controversial changes to labour market regulations. It is important in our view to evaluate the proposed unfair dismissal provisions separately from the other proposed changes – it is perfectly possible that one change may not be supported by the evidence while others are clearly beneficial.

There may be other valid reasons to exempt businesses from unfair dismissal laws, such as the equity issues that constitute the main thrust of Harding (2002), but as far as the overall employment impact of the proposed changes is concerned, it is likely to be minimal.

References

- Abbott, J., H. De Cieri and R. D. Iverson (1998). "Costing Turnover: Implications of Work / Family Conflict at Management Level." Asia Pacific Journal of Human Resources **36**(1): 25-42.
- Abowd, J. M. and F. Kramarz (2003). "The Cost of Hiring and Separations." Labour Economics **10**(5): 499-530.
- ABS (2001a). "Retrenchment and Redundancy." July 2001. Report 6266.0. Australian Bureau of Statistics.
- ABS (2001b). "Labour Statistics in Brief" 2000, 2001, 2002. Report 6104.0. Australian Bureau of Statistics.
- ABS (2001c). "Small Business in Australia." 2001. Report Nr: 1321.0. Australian Bureau of Statistics. Canberra.
- ABS (2002a). "Employee Earnings and Hours." May 2002. Report 6306.0. Australian Bureau of Statistics.
- ABS (2002b). "Labour Mobility." February 2004. Report Nr: 6209.0. Australian bureau of Statistics. Canberra.
- Addison, J. T. and P. Teixeira (2003). "The Economics of Employment Protection." Journal of Labor Research **24**(1): 85-129.
- AIRC (2004). "Annual report of the President of the Australian Industrial Relations Commission 1 July 2003 to 30 June 2004." Australian Industrial Relations Commission. Canberra.
- Autor, D. H., J. J. Donohue and S. J. Schwab (2004). "The Employment Consequences of Wrongful Discharge Laws: Large, Small or None at All?" American Economic Review **94**(25): 440-46.
- Barrett, R. (2003). "Small Business and Unfair Dismissal." Journal of Industrial Relations **45**(1): 87-93.
- Bentolila, S. and G. Bertola (1990). "Firing Costs and Labour Demand: How Bad is Eurosclerosis?" Review of Economic Studies **57**: 381-402.
- Bertola, G. (1990). "Job Security, Employment and Wages." European Economic Review **34**: 851-886.
- Bertola, G. (1999). "Microeconomic Perspectives on Aggregate Labour Markets", in O. Ashenfelter and D. Card. (ed.) *Handbook of Labour Economics*. Amsterdam, North Holland. Volume 3.
- Bertola, G., T. Boeri and S. Cazes (2000). "Employment Protection in Industrialized Countries: The Case for New Indicators." International Labour Review **139**(1): 57-72.
- Borland, J. (2000). "Recent Trends in Job Stability and Job Security in Australia." CEPR Discussion Paper 420, Australian National University.
- Botero, J. C., D. Simeon, R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2004). "The Regulation of Labor." Quarterly Journal of Economics **119**(4): 1339-1382.
- Boulier, B. L. and R. S. Goldfarb (1998). "On the Use and Nonuse of Surveys in Economics." Journal of Economic Methodology **5**(1): 1-21.
- Button, P. (1990). "The Cost of Labour Turnover: An Accounting Perspective." Labour Economics and Productivity **2**: 146-60.
- CPA (2002). "Small Business Program: Employment Issues, March 2002." Certified Practicing Accountants, Australia.
- Del Boca, A. and P. Rota (1998). "How Much Does Hiring and Firing Cost? Survey Evidence from a Sample of Italian Firms." Labour **12**(3): 427-49.
- Di Tella, R. and R. MacCulloch (2004). "The Consequences of Labor Market Flexibility: Panel Evidence Based on Survey data." European Economic Review: (Forthcoming).

- Emerson, M. (1988) "Regulation or Deregulation of the Labour Market: Policy Regimes for the Recruitment and Dismissal of Employees in the Industrialised Countries" European Economic Review **32**(4):775-817.
- Fella, G. (2000) "Efficiency Wage and Efficient Redundancy Pay." European Economic Review **44**(8): 1473-90.
- Grubb, D. and W. Wells (1993). "Employment Regulation and Patterns of Work in EC Countries." OECD Economic Studies **21**: 7-58.
- Hamermesh, D. (1989). "Labour Demand and the Structure of Adjustment Costs." American Economic Review **79**(4): 674-689.
- Hamermesh, D. (1995). "Labour Demand and the Source of Adjustment Costs." Economic Journal **105**: 620-634.
- Hamermesh, D. and G. A. Pfann (1996). "Adjustment Costs in Factor Demand." Journal of Economic Literature **34**(September): 1264-1292.
- Harding, D. (2002). "The Effect of Unfair Dismissal Laws on Small and Medium Sized Businesses." Research Paper, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.
- Lazear, E. (1990). "Job Security Provisions and Unemployment." Quarterly Journal of Economics **105**: 699-726.
- Lewis, P. and G. MacDonald (2002). "The Elasticity of Demand for Labour in Australia." The Economic Record **78**(240): 18-30.
- Nickell, S. and P. R. G. Layard (1999). "Labour Market Institutions and Economic Performance", in O. Ashenfelter and D. Card. (ed.) Handbook of Labour Economics. Amsterdam, North Holland. Volume **3**
- OECD (1999). OECD Employment Outlook, June 1999. Paris and Washington, D.C.
- Oslington, P. (2002). "Trade, Wages and Unemployment in the Presence of Hiring and Firing Costs." Economic Record **78**(2): 195-206.
- Pfann, G. A. and B. Verspagen (1989). "The Structure of Adjustment Costs for Labor in the Dutch Manufacturing Sector." Economics Letters **29**(4): 365-371.
- Robbins, W. and G. Voll (2004). "Who's Being Unfair? A Survey of the Impact of Unfair Dismissal Laws on Small Regional Businesses", in M. Barry and P. Brosnan. (ed.) New Economies: New Industrial Relations. Proceedings of the 18th Association of Industrial Relations Academics of Australia and New Zealand, Griffith University.
- Wooden, M. (1998). "Is Job Stability Really Declining?" Australian Bulletin of Labor **24**(3): 186-93.

Appendix – Survey Questionnaire

SECTION 4 – HIRING AND FIRING COSTS

Each quarter we ask questions on a special topic. This time we are looking at the costs involved in hiring and firing employees

Q1 Just to confirm that your business has employees other than yourself?

Continue Yes 1
Skip to Q14 No..... 2

ASK ALL:

Q3a In the last 5 years, have you retrenched staff for economic reasons? That is because of falling sales or economic difficulties that meant your business could not continue to employ someone?

Continue Yes 1
Skip to q16 No..... 2

b What was the occupation of the retrenched staff? (occupation groups are listed by decreasing order of skill levels)

Managers and administrators
 (eg corporate or medical manager, faculty head)..... 1
 Professionals
 (eg engineer, lawyer, scientist, pilot, chef) 2
 Tradespersons
 (eg mechanic, electrician, welder, cook, plumber) 3
 Clerks and sale representatives
 (eg secretary, salesman, stock and purchase clerk) 4
 Machine operators/drivers
 (eg engine or crane operator, scaffolder, driver,) 5
 Labourers and related workers
 (eg assembler, earthmover, housekeeper, factory hand).... 6
 Other (specify) 7

c How many permanent staff do you employ in this group?

Record number

d I would now like you to think of the costs that were involved in the redundancy process.

Record \$ cost

For these questions you may wish to think of the last staff member that you made redundant, or the average typical case. Do not include payment of accrued leave or accrued bonuses. Estimates of costs are sufficient.

\$

What was the **procedural cost** for retrenching a permanent employee? This includes the management and clerical time involved in the redundancy, and procedural cost (mandatory negotiations with unions,

authorities).	
e What were the severance and notice in lieu payments?	Record \$ cost <input type="text" value="\$"/>
f How many years of service was this for?	Record years <input type="text"/>

ASK ALL:

Q4a In the last 5 years, have you dismissed an employee for cause? That is because of unsatisfactory performance or serious misconduct?	Continue Yes 1 No.....2
b What was the occupation of the retrenched staff? (occupation groups are listed by decreasing order of skill levels)	Managers and administrators (eg corporate or medical manager, faculty head)..... 1 Professionals (eg engineer, lawyer, scientist, pilot, chef)2 Tradespersons (eg mechanic, electrician, welder, cook, plumber) 3 Clerks and sale representatives (eg secretary, salesman, stock and purchase clerk)4 Machine operators/drivers (eg engine or crane operator, scaffolder, driver,)5 Labourers and related workers (eg assembler, earthmover, housekeeper, factory hand)....6 Other (specify).....7
c How many permanent staff do you employ in this group?	Record number
d I would now like you to think of the costs that were involved in the dismissal process. For these questions you may wish to think of the last staff member that you dismissed, or the average typical case. Do not include payment of accrued leave or accrued bonuses. Estimates of costs are sufficient. What was the time cost for dismissing a permanent employee? This includes the time involved in producing written warnings, documenting decisions or consulting with other parties about the dismissal.	Record \$ cost <input type="text" value="\$"/>
e Did you face any settlement costs? For example for legal advice or settlement payments?	Continue Yes 1

	Skip to g No.....2
f What were the settlement costs?	Record \$ cost <input type="text" value="\$"/>
g Did you face any court costs ? For example for legal representation, compensation or reinstatement?	Continue Yes1 Skip to g No.....2
h What were the court costs?	Record \$ cost <input type="text" value="\$"/>

D. Instructions

A General Questions

A.1. What is your sector of activity? follow the ABS ANZSIC (Australian and New Zealand Standard Industrial Classification).

A.2. What are the three most common occupational groups? follows the ABS ASCO (Australian Standard Classification of Occupations), with major groups 2 and 3, 5 and 6, and 8 and 9 merged. The ASCO ranks jobs by order of skills, degrees and experience. Examples of jobs for ASCO classification are:

1. **Managers and Administrators:** corporate managers in most areas: farming, sales, distribution, engineering, HR, IT, R&D, etc. Also: magistrates, faculty heads, medical administrators etc.
2. **Professionals and Para-Professionals:** engineers, lawyers, corporate accountants, scientists, teachers, computer professionals, economists, pharmacists, chefs, pilots, etc. Also: shop or office managers (travel agency, sport centre etc.), accommodation managers, technical officers.
3. **Tradespersons:** motor or lift mechanics, chemical-, petroleum- or power-plant operators, machinists, automotive electricians, toolmakers, carpenters, tilers, welders, construction and electric tradespersons, plumbers, cooks, skilled agricultural or textile workers etc.
4. **Clerks and Sales/Services Workers:** secretaries, personal assistants, bookkeepers, desktop publishing assistants, travel attendants, receptionists, data entry operators, bank workers, stock and purchases clerks, controllers, debt collectors, sales representatives, retail supervisors, etc.
5. **Plant & Machine Operators / Drivers:** mobile plant operators (bulldozer, excavator, etc.), logging operators, stationary plant operators (engine, crane, etc.), cement plant operators, textile machine operators, drivers, miners, scaffolders, printing hands, store persons, etc.
6. **Labourers and Related Workers:** Factory product assemblers, factory hands, packagers, earthmoving laborers, survey hands, concreters, farm hands. Also registry, mail and other elementary clerks, sales assistants, office cashier, telemarketers, security officers, housekeepers.

A.3. How many permanent staff do you employ?
Please exclude staff employed under casual or fixed-term contracts.

B Firing Costs

There are four types of separations: redundancy, firing, resignations and retirements. Our interest lies solely with:

- **Redundancy** (or retrenchments): departure for reasons not specific to the worker (eg. Due to declining sales, management reorganisation, technological change, etc.)
- **Dismissal for cause**: departure for reasons specific to the worker (eg. poor performances, misconduct etc.)

Q3. Redundancy Cost:

Administrative cost: may include:

- Time spent selecting workers to be made redundant (again, time valuation by wage)
- Outplacement costs
- Other administrative costs

Severance and Notice Payments:

Please exclude payment of accruals (annual leave, long-service leave, sick leave entitlements, and accrued bonuses). Include:

- Severance payments
- Payment in lieu of notice
- Any extra payments

Years of Service:

Since the amount of severance payments varies with seniority, please indicate for how many years the firm has employed the worker made redundant.

Other Costs:

For instance: industrial dispute costs such as the time spent consulting all the parties involved (unions, workers, authorities etc.) and the cost of a strike if negotiations fail.

Q4. Cost of dismissal for cause:

In this situation, the worker will generally not be entitled to severance pay. Three main situations may occur. Please provide firing costs for each situation that you may have experienced.

1. **The worker departs without litigation**, firing costs comprise the administration costs, ie. the time spent writing warnings, counseling, legal advice, gathering evidence and documenting the firing decision (time valuation by wage).
2. **The worker lodges an unfair dismissal claim but agrees to a settlement**. The firing costs then amount to the administration costs plus the cost of legal advice and the settlement payment to the worker.
3. **The worker lodges an unfair dismissal case and goes to court**. If the case is lost by the employer, the firing costs may then comprise the administrative costs plus the cost of legal advice and legal representation, plus compensation and reinstatement costs.