What is an Australian Job Worth?

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Abstract

The value of a job is an important question from management, human resources, legal and public policy perspectives, yet we lack good empirical estimates of this value. This paper sets out a theoretical framework for valuing jobs and estimates the average economic value of an Australian job at approximately $104,000. However, judges awarding compensation for unfair dismissal under the *Fair Work Act* (based on the common law "Sprigg Test") are implicitly valuing a job at around $10,000. If the economic value estimate is correct then workers place a high value on keeping their job, which has important human resources management implications, such as worker commitment and risk taking. Estimates of the value of a job to the worker are also the basis of calculations of the value of jobs to society, which drives job search assistance and retraining policies, investments in early childhood education, macroeconomic and other policies.

Introduction

The value of a job is a key variable for workers, managers, lawyers, and policy makers[1]. For workers and managers this value is what is at stake in negotiations about continued employment, and management of workplace change. It also affects worker effort and willingness to invest in developing skills. If a worker is dismissed then the value of the job becomes central to any legal proceedings under the Fair Work Act, either the unfair dismissal provisions or the increasingly utilized general protection provisions. Estimates of the value of a job to the worker are also important for calculating the value of a job to society, which drives job search assistance and retraining policies, investments in early childhood education, macroeconomic policies, among other policies.

A job based approach to workers, although common among human resources managers, has only recently become widespread among economists through the work of Ed Lazear who observed that "The neoclassical theory of production gives no explicit role to jobs" (Lazear 1995 p77). In the neoclassical economists' world of frictionless competitive markets where a dismissed worker immediately finds another job at the same wage rate a job has no value. It is only when we move outside this neoclassical economists' world that jobs have a positive value to workers. Frictions which generate spells of unemployment between jobs are an obvious source of job value. Stigma borne by dismissed workers in a world of imperfect information is another source. Labour market rents generated by firm specific human capital[2], hiring and firing costs, the exploitation of monopoly power and other market imperfections also generate job value. A positive and substantial value of a job seems more consistent with worker behavior and judicial awards than the zero value implied by the

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[1] The question of the value of a job to the worker is subtly different to the question of firing and hiring costs to the firm, which was the subject of Freyens and Oslington (2007) and a large international literature. Freyens and Oslington (2007) found that the unemployment effects of unfair dismissal regulation are minimal utilizing survey evidence on the costs, and Borland's (2012 p277-78) examination of labour market flows through the changes in Australian regulatory regimes points to a similar conclusion.

[2] Firm-specific human capital, unlike general human capital, is lost with the job and has no value in the labour market. Workers with firm specific human capital may be able to use the cost for the firm of training a new worker to bargain some wage benefit for it. They will typically value their job more than workers with an equivalent amount of general human capital. This is why Becker (1993) argues that firms will pay for firm specific training but not general training for their workers.

frictionless competitive labour markets of neoclassical economics (the evidence is surveyed by Lazear 2018).

However, we know surprisingly little about the value of jobs to individual workers, especially in an Australian context. Within the human resources literature the focus has been on costs to firms of turnover rather than value of jobs to workers, although discussion of many human resources management issues assumes a substantial value of jobs to workers (for instance Cascio 2000). Lawyers have attended in great detail to the legal principles around dismissal of workers with little attention to the economic question of valuing the job lost (for instance Donaghey 2012, Stewart 2018). In Australia the Sprigg legal test to be discussed below has been accepted as the basis of payouts. In economics there has been some discussion of job value in the personnel economics literature (for instance Lazear 1995, 1996, 2018), the literature about workers displaced by international trade (for instance Kletzer 2004, Oslington 2005), and the macroeconomic policy literature (for instance Layard Nickell and Jackman 2005).

It would be nice to have direct evidence of the value workers themselves place on their jobs, but in the absence of such evidence an indication may be worker behaviour pursuing unfair dismissal claims. As discussed in Freyens and Oslington (2013) workers sometimes expend large amounts of time and money pursuing claims, which may indicate a high value placed on the job, or that fairness matters to workers as suggested by the behavioural economics literature, or that grief and denial are powerful forces when a job is lost.

This paper will begin by outlining a simple economic framework for the valuing jobs. The problem of valuing jobs is dynamic and stochastic (as per the models of Saint-Paul 2002 and Booth, Chen and Zoega 2002) but the focus of this paper on the management and public policy issues, plus data limitations, make a full dynamic stochastic model inappropriate here. A simpler model that can be calibrated with the available Australian labour market data will be used here to estimate of the average value of an Australian job. This value will then be compared to the compensation awarded by Australian tribunals to workers found to be unfairly dismissed, and the legal reasoning assessed. Management issues of worker commitment and risk behaviour flow from the value of jobs. Then discussion will move from the private value of a job to the worker to the social value of a job, and its public policy significance.

Model of the Value of a Job

The value of a job to a worker is the present value of the expected stream of benefits:

$$V = \sum_{t=0}^{T} (W_t - X - R_t)(1+i)^{-t}$$

where V denotes job value. The summation is over the period from the present $t=0$ to $t=T$ which is the expected time of termination of the job due to redundancy, lawful firing, or retirement. Departure of the worker to another job is excluded from the calculation of the expected time to termination because it is assumed the other job is better for the worker than the current job.

W_t is the earnings from the job, net of tax at rate X.

R_t is the private value of the best alternative to the job, forgone at any point in time by the worker. This alternative could be another job, or non-work activities. It will depend on labour market conditions, levels of government welfare payments, and the value placed on non-work activities. Where the best alternative is a job this value will be net of any job search or retaining costs.

The time rate of discount is denoted i.

Calibration of the Model to obtain Average Value of an Australian Job

Our task is now to calibrate this model and compute the value of a job, using Australian data on the key parameters *W X R T* and *i*.

Average Annual Wage W = $64,376. This is average weekly earnings for all employees (not necessarily fulltime) of $1238 from ABS 6302.0 *Average Weekly Earnings* May 2019 multiplied by 52. There are other non-wage benefits of the job to the worker, such as better health, social connections and a sense of purpose (as well documented in the happiness literature such as Clark and Oswald 1994 and Winkelman and Winkelman 1998). However, we do not have good enough financial data on these benefits for them to be included in the calculation of the private value of a job. A highly speculative estimate will be included in the estimate of the full social value of a job later in the paper.

Average tax rate on wages   X = 24.6% from OECD data for Australia.

The value of alternatives to employment will be taken to be R = 0 for periods unemployed following separation from employment, and R = 0.8 W for the remainder of the period of employment that could have been expected before separation. Setting R = 0 while unemployed reflects lack of good data on the value of leisure in these circumstances, together with the tight eligibility criteria on Australian unemployment benefits. If the value of the unemployment benefit is less than the wage and the expected wait for benefits exceeds the expected time to re-employment then it is irrelevant. Even without considering the fact that many of the unemployed will never be eligible because of spouse income, assets etc.   R = 0.8 W after re-employment implies a 20% wage loss following involuntary separation, reflecting the long term scarring effect of firing or redundancy, based on US studies (particularly Davis and Von Wachter 2011 and Fallick, Haltiwanger and McEntarfer 2012), in the absence of Australian studies.

The other key parameter here is the duration of unemployment after involuntary separation which is 0.4 years or 22 weeks, from the *Retrenchment and Redundancy Survey* ABS 6266 July 2001.   Note that this remains the most recent ABS Retrenchment and Redundancy Survey where this data is available.   Welfare payments from the Australian government are excluded from my calculations because of the complex assets and partner income tests, as well as waiting periods for benefits after certain types of employment separation.

The expected duration of a job before involuntary separation of 12.5 years is computed from the *Labour Mobility* report ABS 6209 for September 2012, table 10.   This duration is calculated by adding together the annual probabilities of redundancy of 0.04, of firing of 0.01, and retirement of 0.03. As noted above, the quit probability is excluded from the duration calculation because a quit is assumed to be to a move to better alternative than the current job. This exclusion of quits has the effect of increasing the expected duration above the usual Australian estimates of job duration in the literature. In the calculation midpoints of the various tenure at separation bands in the report are used, and 25 years used for the 20+ band.

The time rate of discount rate is taken to be 5% per annum, somewhat arbitrarily, approximating nominal interest rates over the period of the study.

Calibrating the model with these values gives an average job value of $104,182, or about twice annual after tax earnings[3].

Variations around the Average Value of an Australian Job

This calculation of is $104,182 is an average value of an Australian job, and the value will vary by occupation, industry and region.

Occupations, industries and regions with higher wages will have higher job values. Occupations, industries and regions with lower annual probabilities of redundancy or firing, and hence longer expected job durations, will have higher job values, other things being equal. So, in stable industries with long expected job durations like public administration will value their current job more highly than similar workers employed in less stable industries like mining or agriculture. Workers in declining industries with higher firing probabilities and shorter expected job durations such as manufacturing will value their jobs less than workers in expanding industries such as personal services, for the same reason. There are of course other factors in play in declining industries, and where skills are industry specific in the declining industry the lower reemployment probability would work in the opposite direction, increasing the value of the job. Workers in occupations or industries where human capital tends to be firm specific rather than general will value their jobs more, as their wage loss upon reemployment is greater. An example of an industry where firm specific human capital is high is public administration, whereas education jobs are an example where general human capital rather than firm specific human capital dominates. Similar workers employed in public administration and education will value their jobs differently. Occupations with an older age profile will have higher annual retirement probabilities, leading to lower expected job durations, and thus lower job values, other things being equal.

Value of a job will also vary according to business conditions when the job is lost. In a recession it will be harder to find a new job, expected duration of unemployment will be longer, and workers will value their existing job more highly.

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[3] An appendix Excel spreadsheet gives the detailed calculations and further details of data sources.

The guidance the model offers on how job value is affected by occupation, industry and region, and how it changes with economic conditions, may be as important to managers and policy makers as the estimate of the average value of a job.

Sensitivity Analysis

A clear model allows us to explore the sensitivity of the estimated job value to parameters used in the calibration. Confidence in the estimate is higher the less sensitive is the estimate to changes in key parameters, especially those parameters which we don't have good data on.

Perhaps the most arbitrary parameter in this calibration is the time rate of discount, so it is helpful to know how sensitive the average job value is to alternative discount rates. Recalculating the average job value with a discount rate of 3% rather than 5% increases job value by a modest amount to $115,495. So the calibration is fairly robust to changes in this most arbitrary assumption.

Sensitivity to other parameters can also be examined. Adding a year to expected job duration before termination increases job value to $109,206. Unemployment duration rather than the rate of unemployment is the most relevant variable to include in the model, but increases in the rate of unemployment are usually associated with longer expected duration of unemployment spells. Doubling the duration of unemployment following firing or redundancy to 0.8 years also yields only modest increase in job value to $119,714. Adding $10,000 to the average annual wage increases job value by a similarly modest amount to $120,365. Cutting the tax rate has similar effects to increasing the wage, with a cut from an average tax rate of 25% to 20% increasing job value by a small amount to $110,538. Relaxing the assumption that zero income is earned during the expected 0.4 years of unemployment, so half of the unemployed are eligible for immediate benefits at the current maximum rate for a partnered beneficiary of $510 per fortnight, would make almost no difference to job value reducing it by $2652. Reducing the wage penalty following firing or redundancy from 20% to 10% reduces the average value of a job to $61,799 and increasing this penalty to 30% increases job value to $146,565 suggesting this is an important parameter for job value calculations, but unfortunately a parameter for which we are particularly lacking Australian data.

The variables then which have the greatest influence on the value of an Australian job are the average wage, and the wage penalty following firing or redundancy which reflects scarring effect of job loss and spell of unemployment.

Comparison with Unfair Dismissal Payouts under Australian Law

An important point of comparison for our calculated average value of a job is the value the Australian legal system places on lost jobs[4]. When courts award compensation for unfair dismissal they are implicitly valuing the job the individual has lost. In Australia, this most commonly occurs in the Fair Work Commission, established under the Commonwealth *Fair Work Act 2009.* The Act provides remedies including reinstatement and compensation for workers found to be unfairly dismissed (defined in the Act as 'harsh, unjust or unreasonable'), or for workers dismissed for seeking to exercise an employment right (the 'general protections' provisions of the *Fair Work Act) .*

In calculating the amount of compensation to award an unfairly dismissed worker under the *Fair Work Act s*392, the Fair Work Commission must consider:
- the effect of the order on the viability of the employer's enterprise;
- the length of the worker's service with the employer;
- the remuneration that the worker would have received, or would have been likely to receive, if not dismissed;
- the efforts of the worker to mitigate the loss suffered because of the dismissal;
- any remuneration earned by the worker from employment during the period between the dismissal and the making of the order for compensation;
- any income reasonably likely to be earned by the worker during the period between the making of the order for compensation and the actual compensation; and
- other matters considered relevant e.g. misconduct by the employee, which contributed to the employer's decision to dismiss them.

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[4] Further details and a brief history of Australian dismissal regulation may be found in Freyens and Oslington (2007, 2013). Federal regulation began in 1996, under the Keating Labour government, then the Howard government significantly changed regulation with *Workchoices* in 2006, and then the incoming Rudd Labour government replacing it with the *Fair Work Act* in 2009 .

These rules enact with some modifications the "Sprigg Test" which has been accepted by Australian courts as the method for determining compensation. In *Sprigg v Paul's Licensed Festival Supermarket (1999) 45 AILR* the full bench of the Australian Industrial Relations Commission (predecessor to the Fair Work Commission) set out a method of calculating compensation:

1. Estimate the remuneration the employee would have received, or would have been likely to have received, if the employer had not terminated the employment.

2. Deduct moneys earned since termination.

3. Consider reducing the amount of compensation awarded if the applicant has failed to mitigate his or her loss.

4. For contingencies, consider discounting the remaining amount of compensation. (Note that in the *Sprigg* case a 25% contingency was applied, although it was not clear how this figure was arrived at, and there has been considerable variation in the treatment of contingencies in subsequent cases).

5. The impact of taxation should be calculated to ensure that the employee received the actual amount they would have received if they had continued in their employment.

6. Apply any legislative cap on compensation.

Some aspects of these rules are perplexing from a strict economic point of view. The Fair Work Act factors to be considered include length of service, but length of service is not directly relevant to expected economics losses. Perhaps the thinking is that length of service may correlate with the economically relevant expected duration of unemployment. More likely is that including length of service is attempting to capture a notion of fairness to the worker. It is also unclear how tribunal members should incorporate the "effect on the viability of the business" in the compensation calculation. Similarly, the punitive element for misbehavior by the employee is unclear. Also, why should the dismissed worker bear the full cost of uncertainty in the form of a reduction in their compensation payment for "contingencies"? Neither the *Fair Work Act* nor the *Sprigg* case specify how the time value of money is to be dealt with.

There is nothing wrong with including fairness and other considerations besides expected economic losses. However, in my view, the legal process would be improved by a more rigorous economically based procedure for compensation, with explicit identification of

additional considerations like fairness, and a clearer indication of how these are to be calculated when determining compensation for dismissed workers[5].

Nevertheless, the Sprigg and *Fair Work Act* procedures are essentially attempting to estimate the economic value of the job that has been lost. Consider now the amounts of compensation that have been awarded by the Fair Work Commission.

Data on payouts to unfairly dismissed workers is scarce. The Fair Work Commission has only recently begun releasing the amounts of compensation awarded in unfair dismissal cases that go to arbitration and monetary settlements in conciliated unfair dismissal and general protections cases[6]. In standard unfair dismissal cases the worker must show the dismissal was "harsh, unjust or unreasonable" and damages are capped at six months wages. General protections cases, where the worker claims they have been dismissed for seeking to uphold a workplace right, are handled somewhat differently to standard unfair dismissal cases. In general protections cases there is a reverse onus of proof on the employer to show that the dismissal was not related to the attempt to assert an employment right, and damages are uncapped. In standard cases the Fair Work Commission attempts to conciliate, but may arbitrate award damages if conciliation fails. In general protections cases that cannot be settled by conciliation a certificate is issues by the Commission which allows the complainant to take the case further to the Federal Court.

Data on payouts for standard unfair dismissal and general protections cases are given in Figure 1 below:

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[5] There are signs the Commission is recognising the limitations of the Sprigg Test. In *Smith v Moore Paragon 2013 FWCFB 431* the Sprigg Test was referred to merely as a "guideline" and the following comment made by the Full Bench "It seems to us that the amounts arrived at by the application of the guidelines in Sprigg in the present matter are on their face manifestly inadequate for employees with the length of service of the Appellants, the circumstances of their dismissal and their poor prospects for future employment." They emphasized s170 of the Fair Work Act requires the remedy be "appropriate having regard to all the circumstances of the case".

[6] Prior to the release of this information by the Fair Work Commission the only way that compensation payments could be ascertained was to trawl through the AustLii database of the Australian Legal Information Service for unfair dismissal cases, and extract the amounts from the court orders. Freyens and Oslington (2019) compiled a database of all cases arbitrated by the Commission and its predecessor bodies back to the introduction of unfair dismissal legislation in Australia in 1999, for the purposes of comparing the effect of changes in the legislation from the Workplace Relations Act, to Workchoices, to Fair Work..

Figure 1 –Monetary Settlements from Fair Work Commission Annual Report 2016-7				
Unfair Dismissal Cases (UFD)			**General Protection Cases**	
Settlement $	Number of Conciliated Outcomes	Number of Arbitrated Outcomes	Settlement $	Number of Conciliated Outcomes
0-999	553	2	0-999	146
1,000-1,999	1002	12	1,000-1,999	190
2,000-3,999	1893	27	2,000-3,999	323
4,000-5,999	1344	20	4,000-5,999	229
6,000-7,999	790	12	6,000-7,999	128
8,000-9,999	474	9	8,000-9,999	69
10,000-14,999	643	14	10,000-14,999	147
15,000-19,999	251	17	15,000-19,999	81
20,000-29,999	163	13	20,000-29,999	64
30,000-39,999	49	4	30,000-39,999	29
40,000-maximum	32	3	40,000-49,999	9
			50,000-59,999	5
			60,000-69,999	12
			70,000-79,999	7
			80,000-89,999	8
			90,000-99,999	1
			100,000 +	9
Total	7194	133	Total	1457
Average	$6,177	$11,372	Average	$9,588

Notes:
- The FWC data misses payouts negotiated outside the commission, and for workers ineligible to claim because they are above the earnings threshold currently $148,700 per year. There is unfortunately no data available on these often confidential settlements for high wage workers.
- Cases where zero or unknown compensation was paid are excluded. For conciliated cases a large number of outcomes are unknown. Also general protections cases which cannot be resolved by the Commission then proceed to the Federal Court, and there is no data available on outcomes of these cases at the Federal Court.
- Averages are calculated by multiplying the midpoint of each band by the number of outcomes.
- The highest band for UFD outcomes is $40,000 to the maximum amount of 6 months wages, and we do not know the wages of employees in these cases, though for employees not covered by an award it must be below the legislated cap of $142,000 per annum. Assuming the maximum amount is $100,000, this gives a midpoint of $70,000 for the highest UFD band.
- The highest band for general protections cases is $100,000+. Since these payments are uncapped it is very difficult to know these amounts. Assume the highest payout is $200,000, giving a midpoint of $150,000 for the highest general protections band.

The amounts of average monetary settlements in Figure 1 are clearly a long way below my estimate of the average value of an Australian job. The especially low average Unfair Dismissal conciliation settlement of $6,177 in figure 1 may reflect "go away money" being paid to employees in cases which have little merit. Our data set is perhaps missing some of the very large monetary conciliated settlements which are not reported to the Commission after conciliation. Reporting is voluntary. Unfair dismissal settlements are capped at six months wages. Settlements in arbitrated unfair dismissal cases average $11, 372. The average settlement in conciliated general protections cases of $9,588 is higher than that for conciliated unfair dismissal cases, reflecting the more advantageous rules for these cases where damages are uncapped and there is a reverse onus of proof on the employer to show that the dismissal was not for a prohibited reason under the *Fair Work Act*. We might also expect arbitrated settlements to be less than the full economic value of a job if the employee mitigates the loss by getting another job quickly, or if the Commission reduces the amount for failure to mitigate the loss or for misbehavior. Perhaps most importantly, we are missing in figure 1 the amounts awarded to workers in the general protections cases which cannot be resolved at the Commission and which proceed to the Federal Court. These are likely to be the highest stakes general protections cases, with the largest compensation payments, but no information is available on the settlement amounts.

None of these factors though seems sufficient to explain the very large discrepancy between the average reported settlements in figure 1 of $6177 to $11,372 and my calculated economic value of a job of around $100,000.

What does the large discrepancy mean for the regulation of dismissals in Australia? If my calculations of the economic value of a job are anywhere near correct, then the calculation method used by the Fair Work Commission in determining compensation needs to be rethought. If the public policy intent is not to fully compensate workers for the expected economic losses from the destruction of their job, then this should be made more explicit.

From a legal perspective the current situation means there is scope for legal action by workers for common law breach of contract to recover larger amounts of damages than possible through the Fair Work system. Such successful litigation would put pressure on the Fair Work process because part of its rationale is to provide a simple, cheap, and fair mechanism

for resolving conflict around employment separations. Realistically though, such litigation is only likely to be feasible for highly paid workers who can afford the legal costs.

Comparison with Redundancy Payments

The other type of payment an involuntarily terminated worker may receive is redundancy mandated by the National Employment Standards, an award or enterprise agreement. This is where the position itself disappears rather than the worker in that position being fired for poor performance, misconduct etc. The rules are complex and entitlements vary greatly between awards and enterprise agreements. Entitlements are generally based on years of service, with additional provisions for older workers. Minimum entitlements specified in the National Employment Standards vary from 4 weeks pay for a worker with one year service, to 12 weeks pay for over ten years service.   Twelve weeks pay at the average wage rate before tax used in my job value calculations amounts to $16,094.

Unfortunately, the Australian Bureau of Statistics does not publish data on redundancy payments. This is because they are excluded from the definition of earnings, in line with international conventions (Australian Bureau of Statistics 2018). The main Australian data we have on redundancy payments remains the survey of Freyens and Oslington (2007 p8) where the average payment was estimated to be $17,530, excluding any accrued entitlements. As discussed when the estimate was published, it is above any reasonable calculation of minimum entitlements. However, even allowing for inflation since the survey was conducted and subsequent changes in entitlements under awards and enterprise agreements it is way below my estimate of the value of an Australian job of $104,182. So redundancy payments, like payouts to unfairly dismissed workers fall well short of compensating workers for the value of the job they have lost.

Management and Policy Implications

The value of jobs to workers is clearly much higher than suggested the compensation payments awarded by the courts or redundancy payments, even without taking account of non-monetary benefits such as job satisfaction and social networks at work (for instance Kalleberg 1977). This has important implications for managing employees.

A high economic value on their existing job means high worker commitment to their existing job. A well as making this fairly obvious point, the model and its calibration with Australian data indicates the occupations, industries, and regions where job value is higher – for instance where expected unemployment duration is longer, where pay on reemployment is likely to be lower because of human capital being firm specific, and so forth. The higher the wage the higher the value of the job, but it must be emphasized that the wage is just one of several factors driving job value, and human resource managers should not confuse the worker's pay with the value they place on their current job. It may very well be that lower paid workers actually value their current job more highly, and have greater commitment to their current employer.

This postulated effect of job value on worker commitment is similar to the well documented efficiency wage effect in the economics literature – where higher wages are paid by firms to secure worker commitment (for example Weiss 1990). Higher wages increase commitment by increasing the value workers place on their jobs.

Another effect of a high value placed on the existing job is on risk taking by workers. Many decisions workers take in the course of their jobs balance the upside of successful risk taking (promotions, pay rises, esteem of fellow workers) with the downside of unsuccessful risk taking (the possibility of being fired) The downside of risk taking will matter more to workers who value their current jobs more highly, so workers in occupations, industries, and regions with higher job values would be expected to take fewer risks on the job. This may be a good thing in a hospital, but bad in technology firm that relies on risky innovation for competitive advantage.

The model is thus useful to managers not just for the finding of a high average job value but for highlighting the factors which drive job value, with flow on effects on worker commitment and risk taking.

Excursus: The Social Value of a Job

So far, the focus has been on the value of a job to the individual worker, and its legal and management implications. However, this private value is also the basis of most calculation of the social value of a job, which is the relevant value for most public policy purposes.

The social value of a job will diverge from the private value for a number of reasons. Additional social costs of job loss include:

- Health costs, physical and psychological, associated with unemployment that are borne by society, as discussed by Latack, Kinicki and Prussia (1995) for the US, and by Winefield (2002) and Carroll (2007) in an Australian context. The most extreme health cost is premature death which Eliason and Storrie (2009) attempted to estimate the incidence of for the US.

- Costs to society of increased crime associated with unemployment, as discussed by Mayhew (2003) and Weatherburn (2001) for Australia.

- Costs of undermining of human relations, family life, and social values. Taylor and Saunders (2002) discuss these, and Leigh (2010) attempts to quantify these for Australia using a social capital framework. Kellner, McDonald and Waterhouse (2011) discuss the case of young Australian workers who are dismissed. Reliable dollar values remain elusive.

The only published academic attempt to estimate social cost of job destruction for Australia remains Watts and Mitchell (2000). They focus on the cost to the government budget (in the same manner as the UK study of Dilnot and Morris 2005), rather than full cost to society of the health, crime and other effects of a lost job (in the manner of economists' benefit-cost techniques). Data requirements of a full benefit-cost analysis made it infeasible in this case. For the 7.4% rate of unemployment at the time of their study, which represented 713,000 persons, the direct fiscal benefit to the government of reducing unemployment by 520,000 persons to 2% was estimated to be $17 billion per year. This implies an average direct fiscal cost of an increase in unemployment by one job of about $33,000 per year. Note that Watt and Mitchell's figure is an average for all the unemployed rather than dismissed workers. A more recent, though unpublished study is Hetherington (2008). Using somewhat similar methods he estimates the cost to the government budget of an unemployed worker is $45,751 per year. Of this $20,550 is lost taxation revenue, and the remainder is costs of poor health and crime.

There is an important conceptual distinction between the the average annual costs borne by society because of an increase in unemployment and the social costs imposed by a lost job. My focus has been on the value of a lost job, but have cited the evidence we have on costs of unemployment because we lack studies of the social cost of a lost job.

These studies may suggest what the social cost of a lost job could be. If we just consider the fiscal cost of the expected spell unemployment after a job is lost of 0.4 years, and use the more recent Hetherington (2008) figures, then a further fiscal cost of $18,300 must be added to my calculated private cost of $104,182   If we then add a completely arbitrary estimate of $10,000 for the non-fiscal costs to society of a lost job, then we have a full social value of a job of approximately $132,000.   Further empirical work is needed on the social costs of job destruction in Australia, before any estimate of the private value of a job can be augmented with a robust estimate of the full social value of a job. Such empirical work is a large project well beyond the scope of this paper.

Conclusions

This paper has discussed some of the conceptual issues involved in valuing jobs and set out a simple economic model of the value of jobs to workers. Calibrating the model with Australian data yields a private value of an Australian job of $104,182. Job value is substantial, a finding which is consistent with worker behaviour when jobs are threatened. The model also highlights the factors affecting job value, allowing analysis of variation across occupations industries and regions

This calculated value of an Australian job is many times the average compensation obtained by unfairly dismissed employees who take their cases to the Fair Work Commission, suggesting that the conceptual and evidence basis of compensation calculations by the Commission needs to be re-examined.

Besides legal implications, the value of a job matters for managers as it feeds into worker behavior, especially worker commitment and risk taking.   The model emphasizes that job value as defined in this paper, rather than the worker's wage is the behaviorally relevant for commitment and risk taking behavior. Wages are just one component of the value workers place on their jobs.

The value of jobs to workers matters for public policy as it the starting point of estimates of the value to society of a job.   The high calculated value of an Australian job found in this paper underlines the importance of carefully considering job losses when evaluating public policy changes, and devoting resources to mitigating the impact on individuals losing jobs. This point is emphasized by Borland (2015 p229)

Even if we are just concerned about the private costs there are important distributional questions in play, because policy changes such as opening up an industry to trade competition involve trading off job losses for some workers against income gains for others in society. The art of public policy here is mitigating the adverse impact on some workers in a way which does not unduly damage the processes of economic innovation and adjustment that are crucial to the long term capacity of the economy to generate employment. Substantial costs of job loss for individuals also suggests a role for socially responsible firms and their managers in minimizing job losses and mitigating their impacts. We need more research to quantify the social costs of job loss and estimate of the full social value of an Australian job.

One of the messages from this paper is that inadequate data rather than theoretical modelling issues that is limiting our capacity to accurately estimate the value of a job, and it is hoped that this study will stimulate further work in this area.

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Appendix: Data and Calibrations   (see separate Excel spreadsheet)