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Negotiating the Gender Wage Gap

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Abstract: There is some evidence that gender differences exist in the propensity to negotiate and outcomes from negotiation. Evidence from the psychology and management literatures suggest that relative to males, females are less likely to initiate negotiation and in the event of negotiation, ask for and receive less. This paper examines the propensity of males and females to negotiate over pay, the wage outcomes resulting from negotiation and its impact on the gender wage gap in a non-experimental setting. Using a unique Australian dataset we find evidence that females are less likely than males to have the opportunity to negotiate over pay in their jobs. However, conditional on the opportunity to negotiate, they are no less likely to actually negotiate their pay. Further, while negotiation is associated with higher wage outcomes, females do not fare worse than males in the event of negotiation.

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1. Introduction

There is a significant literature dating from the 1970s investigating the role of gender in negotiation and bargaining (Small *et al.* 2007). More recently, research in sociology and psychology highlights potential gender differences in *attitudes* towards negotiation and the outcomes achieved from negotiation. In particular there is some evidence that women are less likely to initiate negotiations and in the event that they do negotiate, ask for and receive less compared to men (Babcock and Laschever 2003).

Gender differences in the propensity to negotiate and the outcomes achieved are likely to have important implications across a range of dimensions including the labour market. Blau and Kahn (1996, 2003) consider the role played by institutional arrangements such as the minimum wage, workplace policies and wage setting mechanisms in explaining wage inequality and the gender wage gap. If men and women differ in their propensity to negotiate and the outcomes achieved from negotiation, wage setting arrangements in which negotiation plays an important role have the potential to influence the male-female wage differential. While Babcock and Laschever (2003, p.1) note that men are up to eight times more likely to negotiate salary offers than women, in general there is only a small literature that directly relates the gender wage gap to the wage setting regime (Antonczyk, Fitzenberger and Sommerfeld 2010).

Our objective in this paper is to contribute to the literature around gender, the propensity to negotiate over pay and its relationship to the male-female wage gap. We begin by examining differences in the propensity of men and women to negotiate over wages and the implications of negotiation for wage outcomes. We then consider the importance of negotiation for the gender wage gap. In particular, the analysis seeks to provide some insight into the role of negotiation by considering if female employees are less likely to undertake negotiation given they have the opportunity to do so. Unlike the existing literature, an important feature of the analysis in this paper is that the data can identify those who have the opportunity to negotiate but choose not to do so. In the event they do negotiate, we examine if women experience lower wage outcomes relative to men. We then consider the role of negotiation on the overall gender wage gap using a decomposition methodology that explicitly takes into account differences in the gender wage gap within and across jobs in which negotiation over pay occurs.

Previous studies that have considered the importance of negotiation on remuneration outcomes for males and females have generally focussed on a specific set of employees (Gerhart and Rynes 1991) or relied on experimental data (Dittrich, Knabe and Leipold 2014; Leibbrandt and List 2015). The analysis in this paper makes use of a unique Australian dataset that contains detailed information on the wage setting process and in particular, whether the employee negotiated wages with their employer. Further, the panel nature of the dataset allows for

unobserved heterogeneity across workers to be controlled for. More generally, the analysis is timely given reforms to industrial relations legislation in Australia that sought to reverse the growing importance of direct employee-employer level negotiation in the wage-setting process.

The remainder of the paper is set out as follows. In the next section, we present a literature survey that describes the evidence around gender differences in the propensity to negotiate and the outcomes achieved from negotiation. We also discuss briefly the nature of wage setting in Australia and alternative explanations identified in the literature for the persistent gap between male and female earnings. In section 3, we describe the data used in the analysis, namely the *Australia at Work* data. Following this we set out the methodological framework used in the empirical analysis. Results from the empirical analysis are presented in section 5. A discussion of the policy implications and potential avenues for future research are set out in section 6.

The empirical analysis points to a pattern whereby females are less likely than males to have the *opportunity* to negotiate over pay, even when conditioning on a large range of employment-related characteristics. Nevertheless, in the event they have the opportunity to negotiate we find that females are no less likely to engage in negotiations over pay. In addition, we find no evidence that females who actually negotiate fare worse than their male counterparts. That is, our results suggest that women may still be ‘less likely to ask’ by virtue of fewer opportunities to do so, but in the event they do ask, do not ‘ask for less’. The decomposition of the gender wage differential indicates that it is the differences in the *returns to characteristics* or the unexplained component that drives the gender wage gap, rather than differences in characteristics. The gender differential is mostly due to unexplained wage differences within jobs rather than the differential distribution of men and women across jobs with and without negotiation. As a result, we identify only a relatively small role for the effect of negotiation on the gender wage gap.

2. Literature Survey

Negotiation and Negotiated Outcomes – The Role of Gender

The literature on the impact of gender on negotiated outcomes encompasses a wide range of disciplines including economics (Dittrich, Knabe and Leipold 2014), sociology (Babcock and Laschever 2003), management (Faes, Swinnen and Snellix 2010; Kulik and Olekalns 2012) and psychology (Gerhart and Rynes 1991; Bowles, Babcock and McGinn 2005). The literature suggests that gender may be important for negotiation and negotiated outcomes for a variety of reasons. These include the rules and context in which negotiation occurs; gender differences in perceptions about negotiation; contrasting negotiating styles; and, differences in the way that

men and women communicate in negotiation settings (Bertrand 2011; Faes, Swinnen and Snellinx 2010).

Differences in negotiation and negotiated outcomes experienced by men and women may also reflect structural explanations such as external constraints around care-taking responsibilities in the domestic setting (Bowles and McGinn 2008). Negotiated outcomes are also likely to be affected by real or perceived stereotypes around what is the appropriate role for males and females, and, the negotiator's own characteristics other than gender (Bowles and Babcock 2009; Kulik and Olekalns 2012). For example, Bowles, Babcock and Lai (2007) find that women tend to be treated more harshly than men who initiate negotiations, and observe greater reticence on the part of women to initiate negotiations. This finding is attributed, at least in part, to the social costs experienced by females who take a more 'masculine' approach to bargaining over compensation. Perceptions of one-self and societal gender norms may also be important in the negotiation context (Hogue, DuBois and Fox-Cardamone 2010; Eckel *et al.* 2008).

Existing literature provides some evidence that women have a lower propensity to negotiate relative to men and in the event of negotiation, to be less aggressive. This may be because females on average are more cooperative and less assertive than men in a bargaining setting (Croson and Gneezy 2009; Faes, Swinnen and Snellinx 2010; Gerhart and Rynes 1991). In the employment context for example there is evidence that women begin with lower pay expectations relative to similarly qualified men, negotiate less assertively and as a result accept lower outcomes than men (Hogue, DuBois and Fox-Cardamone 2010; Bowles and McGinn 2008).

In general there is limited evidence from real world data of the implications of negotiation and bargaining situations, especially in the employment setting. Gerhart and Rynes (1991) analyse the experience of a sample of 205 recent MBA graduates and find no evidence that women are less likely to negotiate compared to men. Nonetheless, they do find that women obtain lower monetary returns from negotiation compared to men. The analysis suggests that structural factors, such as low initial offers and the availability of alternative offers, play a larger role in the differential outcomes experienced by men and women rather than gender *per se*. Bowles, Babcock and McGinn (2005) also use the experience of MBA graduates and find evidence that women receive approximately 5 percent lower starting salaries compared to their male counterparts. This appears to reflect outcomes in negotiating contexts where there is high 'structural ambiguity', with outcomes for females less advantageous when parties are uncertain about what is attainable from the negotiation process.

Evidence on the differences between men and women on the willingness to ask for higher wages is provided by S ave-S oderbergh (2016). Using data on the salary requests made by a

sample of recent Swedish graduates, there is evidence that females are more likely to ask for a particular wage and in the event they do, generally ask for less. Moreover, females are offered lower wages than males in general. The analysis identifies a somewhat higher gender wage gap of 3.2 percent in those jobs where bargaining occurs compared to 2.6 percent in jobs with posted wages. Blackaby, Booth and Frank (2005) find a strong correlation between the number of outside offers and earnings for male academics but not for females, which may be consistent with a lower willingness of females to bargain. In a recent analysis of Australian data, Artz, Goodall and Oswald (2016) find that women and men are equally likely to ask for a pay rise, but women are less likely to receive a pay increase. They point to the number of work hours as an important determinant of both the propensity to ask for a wage rise and the gender gap around this behaviour.

Gender differences around negotiation outcomes and propensity to negotiate have also been examined extensively using experimental techniques (Bowles, Babcock and McGinn 2005; Bowles, Babcock and Lai 2007; Dittrich, Knabe and Leipold 2014). Croson and Gneezy (2009) note that the existing experimental evidence indicates that women tend to be less competitive than men in bargaining situations and significantly less likely to initiate negotiations at all. Both 'nurture' and 'nature' may help explain these differences. While there are sound biological reasons why males may be more competitive, it is also the case that girls are often expected to show greater empathy and be more egalitarian in the activities they are encouraged to participate in (Bertrand 2011; Croson and Gneezy 2009).

Reporting the results from a lab experiment, Dittrich, Knabe and Leipold (2014) find that male employees tend to negotiate higher wages and that male employers pay lower wages to female employees. Leibbrandt and List (2015) describe a field experiment designed to identify whether females sort into workplaces where salary is negotiable and gender differences in willingness to negotiate over salary. They find evidence that males are more likely to choose employment relationships where the rules of wage determination are ambiguous, and the possibility of negotiation is not explicitly mentioned. In terms of actual negotiation, they find that when there is no explicit statement that wages are negotiable, men are more likely to negotiate than women. However, when the possibility of negotiation is explicitly mentioned, males and females have a similar propensity to negotiate.

Overall the evidence around gender and its relationship to negotiation is ambiguous, with some studies identifying poorer outcomes for women whereas other studies find little or no impact. While experimental studies facilitate specific aspects of the negotiating environment to be manipulated, a question remains about their application outside the laboratory setting. To the extent that analyses such as those by Gerhart and Rynes (1991), S ave-S oderbergh (2016) and Bowles, Babcock and McGinn (2005) rely on 'real world data', it is not clear that the results can be generalized from the specific contexts considered in those studies. A key

contribution of this paper is to use a large representative dataset to analyse differences in the propensity of men and women to negotiate, and whether the wage outcomes resulting from negotiation differ by gender. In turn, it is possible to identify the importance of individual-level wage negotiation for the gender wage gap.

Wage determination and gender wage differentials in Australia

In 2016 the raw gender pay gap in Australia was approximately 16 percent measured over average weekly ordinary time earnings for full-time employees (Workplace Gender Equality Agency 2016). Although the gap in earnings is smaller in Australia compared to some countries, it has persisted over time (Daly *et al.* 2006; Kee 2006). A number of studies have sought to shed light on the persistent gender wage gap in Australia. Kee (2006) finds that differences in gender-specific returns are the main source of the gender wage gap. Moreover, there is evidence of a ‘glass ceiling’ with a larger wage gap at the top of the wage distribution, especially in the private sector (Baron and Cobb-Clark 2010). In general the empirical analyses suggest that Australian females earn less on average as a result of differences in *returns* to characteristics rather than differences in characteristics such as occupational distribution (Cobb-Clark and Tan 2011).

In the Australian context, the role of wage setting practices is potentially an important consideration when attempting to understand the gender wage gap (Meng and Meurs 2004). Until recently Australia had a long history of centralised wage bargaining and only over the last two decades has a relatively rigid wage structure determined through a set of centrally determined ‘awards’ has given way to wage bargaining at the enterprise level and the individual level (Wooden 2001; Borland 2012). Changes to industrial legislation following the re-election of a Conservative government in 2004 furthered this process. This reform, titled ‘*Work Choices*’, was designed to enhance bargaining between employers and employees directly, thereby circumventing the role of centralized wage determination bodies and to a lesser extent, unions in the determination of wages (CCH Australia 2007, p. 1). Following the 2007 Federal election, the incoming Labor government reversed some of these changes so as to mitigate the importance of individual negotiation and give collective bargaining a more substantial role in the wage setting process. The data analysed covers the period 2009-2011 during which this new legislation, termed the *Fair Work Act*, progressively superseded the operation of *Work Choices*.

Seminal studies by Blau and Kahn (1996; 2003) identified the importance that wage setting institutions can have on wage inequality and the gender wage gap. Given that the female wage distribution tends to lie below that of males, centralised wage setting, collective bargaining and other institutional arrangements that raise minimum rates of pay will tend to lower the male-female wage differential (Blau and Kahn 2003). Collective bargaining may also be consistent

with a significant gender wage gap notwithstanding that such agreements ostensibly provide for equal pay for both males and females (Card, Cardoso and Kline 2016). There is some evidence that the initial round of decentralization of wage setting to the enterprise level during the 1990s increased the gender wage gap (Reiman 2000; Wooden 1997), or at least did not reduce it (Pocock 1999). Recent analysis in Kidd and Healy (2013) identified steady growth in the gender wage gap as wage setting became increasingly less centralised.

3. Data

The analysis in this paper uses the *Australia at Work (A@W)* data collected by the Workplace Research Centre at the University of Sydney.¹ The A@W data is a longitudinal survey designed to collect workforce, demographic and socioeconomic status data over a five-year period, 2007-2011. The A@W survey incorporates a sample of individuals who were either employed or looking for work in March 2006. The original sample of 8,341 individuals was initially interviewed in March 2007 and additional interviews were conducted annually, generally between February and June. At the time of the first survey individuals were aged between 15 and 59 years.

Unique about the A@W data is that it includes a wide array of information on the labour contract, formal pay setting instruments, working conditions and workplace relations. Crucial for this study are specific questions on having the opportunity to negotiate pay; whether an individual actually negotiated pay (conditional on having the opportunity to negotiate); and, whether initial pay and conditions were negotiated with the employer at the start of the current employment relationship.² This information provides an opportunity to examine the effect of negotiation between employers and employees in a non-experimental setting. Moreover, the data was collected around changes to workplace laws that had a direct impact on individual negotiation between employers and employees. Although the period coincides with the poor global economic conditions, unlike many other countries the Australian labour market remained relatively robust. Unemployment peaked at less than 6 per cent and averaged less than 5 per cent during the period when data was collected.

Prior to examining negotiation behaviour and the gender wage gap, the data is restricted as follows. We select individuals aged 18-65 years in any wave who report being in work. Observations where individuals report being self-employed are dropped. The analysis relies on data from the last three waves (w3-w5), for individuals who participate in at least one of these waves and who provide a non-missing response to the question regarding opportunity to

¹ We thank Prof. John Buchanan and Sally Wright at the Workplace Research Centre, University of Sydney, for providing us information about and access to the data.

² The survey questions regarding negotiation are set out in Appendix 1.

negotiate pay. This results in an unbalanced sample of 5,361 individuals. The balanced sample consists of 3,622 individuals who report working in all three waves, with hourly wage observations available across all three waves for 3,029 individuals. The unbalanced sample includes a total of 13,665 person-year observations. Hourly pay is calculated using reported earnings in the main job and the usual number of hours of work. Earnings have been deflated using the Australian Bureau of Statistics (ABS) Consumer Price Index.³

Summary statistics of the sample used in the analysis are shown in Table 1. The individuals in the sample are on average 42.4 years old and females represent approximately one half of all observations. About 28 per cent of workers report being in part-time employment and employees report working around 34 hours of employment per week. The average hourly wage across all workers is approximately \$AUD 28.04.

Of central interest in this paper is the role of negotiation in explaining the gender wage gap. In our sample approximately 40 per cent of individuals report having the opportunity to negotiate over pay in their current employment. Among those individuals who report having the *opportunity* to negotiate over pay, around 36 percent *actually* do so. As a point of comparison, Artz, Goodall and Oswald (2016) report that 39 percent of employees in their sample of Australian workers indicate that pay is a ‘negotiated amount with the employer’. Similarly, Hall and Krueger (2012) report that 37 percent of American employees ‘bargained’ with employers rather than accepting a ‘take-it-or-leave-it’ wage offer. In a recent study for Germany, Brenzel *et al.* (2014) find that 38 percent of establishments negotiated remuneration with their most recent hire. In comparison, Leibbrandt and List (2015) report that only 21.3 per cent of their sample of US job applicants negotiate wages even if the wage is explicitly advertised as negotiable. In the Leibbrandt and List (2015) study, the proportion of individuals who negotiate when the possibility of doing so was left ambiguous was substantially lower again (7.4 per cent). Further, note that hourly wages in our sample are higher among those who report having the opportunity to negotiate (\$29.11) and conditional on the opportunity to negotiate, those who actually negotiate (\$30.45).

4. Empirical Methodology

The central issue of interest in this paper is the role of gender on the likelihood that wages in a job involve individual level negotiation, and, whether there is evidence that wage outcomes

³ Earnings reflect usual total pay (before tax or other deductions), including any overtime payments, bonuses, tips or commissions commonly received. Hours of work reflect the number of hours usually paid for (in the main job). Hourly wages are constructed for observations with usual hours of work limited to at most 80 hours. In addition, the top and bottom 1% of hourly wages are dropped in the wage analysis. Consumer Price index taken from ABS 6401.0 Table 1 - All groups, Index Numbers, December each year.

resulting from negotiation differ by gender. In particular, we consider if female employees are less likely to undertake negotiation given they have the opportunity to do so, and in the event they do negotiate, whether they experience lower wage outcomes relative to males. Following this we undertake a decomposition analysis that identifies the contribution of individual level employee-employer negotiation to the gender wage gap.

Opportunity and propensity to negotiate pay.

The first set of empirical models focuses on whether individuals report having the ‘*opportunity to negotiate*’ pay and whether ‘*actual negotiation*’ occurs. The analysis is motivated in part by two important features of the job-search and matching process and the resulting wage setting process identified in the literature previously (Hall and Krueger 2012; Brenzel *et al.* 2014; Leibbrandt and List 2015). First, there is some evidence that individuals sort into jobs that differ according to whether wages are negotiated or a ‘take-it-or-leave-it’ offer is made. Hall and Krueger (2012) for example note that women are much less likely to report being in a job in which bargaining over wages occurred and more likely to be in jobs in which a posted wage and a ‘take-it-or-leave-it’ offer was made. Using employer-survey data for Germany, Brenzel, Gartner and Schnabel (2014) also find that women are less likely to sort into jobs with negotiated wages. This gap, however, disappears once controlling for firm and industry characteristics. The second pattern relates to whether negotiation actually occurs. Leibbrandt and List (2015) find that even when wages are described as negotiable, only around 21 percent of men and women actually negotiate over their pay. Furthermore, when there is ambiguity around negotiation and wages are not explicitly advertised as being negotiable, both men and women are less likely to negotiate pay but the drop is larger for women. Hence in this case, males are considerably more likely to actually negotiate pay compared to females.⁴

The first series of empirical estimates seek to shed some light on these patterns by estimating two sets of relationships. As a first step, we estimate a series of models that relate the ‘*opportunity to negotiate*’ with observable characteristics of the respondents and their jobs. Following this, we present a series of models in which the dependent variable captures if the individual *actually negotiated* over their pay conditional on the opportunity to do so. In both cases the primary focus is on differences between men and women in the opportunity to negotiate, or, actual negotiation over wages. The nature of the A@W data facilitates an important distinction not available in other studies such as Hall and Krueger (2012). In particular, it is possible to identify individuals who report having the opportunity to negotiate but who choose not to do so. Based on earlier studies, it is not possible to identify if that set of

⁴ In some cases, respondents in Leibbrandt and List (2015) indicated a willingness to work at a lower wage than that which was offered. The discussion in the text refers to those who negotiated an increase in the advertised wage.

individuals are more like those who do not have the opportunity to negotiate or those who actually negotiate, both in terms of their characteristics and outcomes.

In the first set of estimates we define a variable ($OppNeg_{it}$) that equals one if the individual reports that they had the opportunity to negotiate over pay in their current employment, zero otherwise. A probit model of the following form is estimated:

$$OppNeg_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Fem_{it} + \varepsilon_{it} \quad (1)$$

The vector X_{it} includes a range of variables that existing literature has highlighted as being potentially important in determining if individuals sort into jobs characterized by negotiated wages (Hall and Krueger 2012; Brenzel, Gartner and Schnabel 2014; Artz, Goodall and Oswald 2016). The data and context in this study allow to include additional and more detailed variables, related to potential surplus and bargaining power in an employment match. The first set of variables proxy for the human capital of employees and include age, education and, job tenure. Hall and Krueger (2012), and, Brenzel, Gartner and Schnabel (2014) for example find that the reported incidence of bargaining over pay rises sharply with education. In our analysis it is likely that tenure in the job will be an important determinant of whether an individual has the opportunity to negotiate. While Hall and Krueger (2012) focus on the wage determination process at the *start* of the employment spell, the analysis in this paper examines if employees have the opportunity to negotiate over pay during the preceding year. Over time it is likely that employers and employees will become aware of the nature of any match so that tenure is likely to be important in determining if an opportunity to negotiate over wages is available. Hence, current tenure is included in the empirical specification.

In addition, we include descriptors of the job such as part-time status, skill level, occupation and responsibilities associated with the position. Existing evidence indicates that individuals in part-time jobs are less likely to have negotiated over wages, while higher skilled and managerial roles are more likely to be associated with wage bargaining (Hall and Krueger 2012; Brenzel, Gartner and Schnabel 2014; Artz, Goodall and Oswald 2016). Sector of employment and occupation are also likely to be closely related to whether the opportunity to negotiate is available, with posted or non-negotiable wages being much more common in the public sector (Hall and Krueger 2012; Brenzel, Gartner and Schnabel 2014). Firm size may also be an important determinant of whether an individual reports an opportunity to negotiate. In large firms the cost of negotiating with individual employees may be high and *a priori* we expect a negative relationship between the opportunity to negotiate and firm size. For example, Brenzel, Gartner and Schnabel (2014) find that larger firms are less likely to negotiate wage offers with new hires. Similarly, the presence of a union in the workplace is likely to reduce the occurrence of individual-level negotiation over pay. Finally, information about industry of

employment is incorporated into the analysis through a series of indicator variables and a measure of the industry vacancy rate.⁵ Opportunities to negotiate over pay may differ systematically across industries and be impacted by the availability of outside opportunities for employees.

The second set of estimates consider if an individual actually engaged in negotiation over pay with their employer within the past year conditional on having the opportunity to negotiate. Importantly, the question presented to respondents in the A@W survey makes clear that such negotiation refers to ‘*individually negotiating pay with [your] employer*’. We specify a probit model of the following form in which $ActNeg_{it} = 1$ if the individual reports engaging in negotiation, and zero otherwise:

$$ActNeg_{it} = \gamma_0 + \gamma_1 X_{it} + \gamma_2 Fem_{it} + \varepsilon_{it} \quad (2)$$

where the vector X_{it} incorporates a set of variables which are likely to influence whether actual negotiation occurs. For example, Gerhart and Rynes (1991) argue that whether negotiation is observed is likely to be influenced by the attractiveness of any offer made, along with the characteristics of the parties involved. The empirical specifications combine most variables included in opportunity equation (1) above with a range of additional controls. These covariates capture the nature of the employee-employer relationship, potential surpluses created by the match and the potential bargaining power of the employee. In some specifications, measures of overtime and workload expectations are included in the empirical model. Undertaking overtime hours on a consistent basis may reflect robust business conditions and a higher potential surplus that employers and employees can bargain over.

The analysis of actual negotiation is initially conducted using a sample of individuals who report they had the ‘opportunity to negotiate’. This sample is denoted the *conditional* sample from here onwards. Undertaking the analysis using this conditional sample addresses a limitation identified by Hall and Krueger (2012). In that paper, it was not possible to identify those individuals who could have, but chose not to bargain. We repeat the analysis of ‘actual negotiation’ using the unconditional sample (denoted *full* sample) and in doing so provide analysis that is directly comparable to that in Hall and Krueger (2012) and Brenzel, Gartner and Schnabel (2014). In turn, a comparison of the results from the conditional and full sample provides insight into the behaviour of those who could have bargained, but chose not to.

The central question of interest in this paper relates to differences in the propensity of males and females to negotiate pay, and the returns from negotiation. Given the role traditionally

⁵ The construction of industry vacancy rates is set out in Appendix 1.

played by females as primary carers and secondary earners in the household, one possibility is that females may be more concerned with other attributes of jobs such as the number and flexibility of work hours. *Ceteris paribus*, females may be less likely to negotiate over wages and more likely to negotiate over other job attributes. The A@W data provides an opportunity to consider this as in waves 3 to 5 respondents are asked if they ‘*negotiated pay and conditions with [their] employer*’ at the commencement of their employment. While this question does not directly refer to the ‘opportunity to negotiate’ or ‘actual negotiation’, estimates of whether negotiation over pay *and* conditions occurred at the start of employment are also presented.

Negotiation and wage outcomes.

The second question of interest is the impact of negotiation on wage outcomes and whether they differ for males and females. To this end, we estimate a series of wage equations that incorporate information on whether negotiation over pay actually occurred between the individual and his or her employer. These wage regressions are estimated using both the conditional and full samples, with standard errors clustered at the individual level to allow for individual-specific error components in wages. The regressions also include an array of covariates reflecting individual, job and firm characteristics. In general the regressions take the following form:

$$\ln W_{it} = \delta_0 + \delta_1 X_{it} + \delta_2 Fem_i + \delta_3 ActNeg_{it} + \delta_1 (Fem_i \cdot ActNeg_{it}) + \varepsilon_{it} \quad (3)$$

In estimates using the full sample, those who report not to have the opportunity to negotiate are assumed not to engage in actual negotiation so $ActNeg_{it} = 0$ if $OppNeg_{it} = 0$. In these specifications we also control for the opportunity to negotiate to avoid any wage differential related to the opportunity to negotiate from feeding through directly in wage results on actual negotiation. Even though the analysis includes a wide range of observed characteristics, individuals might still differ in unobserved characteristics that are related to both the negotiation propensity and wages. Unlike other studies that have examined the relationship between negotiation and wage outcomes, the panel nature of the A@W data allows for the unobserved heterogeneity to be controlled for in a robust way. To this end, we conduct a fixed effects analysis. Such specifications remove all time-invariant covariates so that returns to negotiation only rely on individuals changing negotiation status over time.

The wage regressions described above provide insight into the relationship between negotiation and wages at the mean. Importantly, Kee (2006), Baron and Cobb-Clark (2010) and Arulampalam, Booth and Bryan (2007) note the existence of a ‘glass ceiling’ associated with a larger gender gap at higher points in the wage distribution. It is possible that the relation between negotiation and wages differs along the wage distribution. Hence to identify how negotiation impacts on the gender gap at various points in the wage distribution, we also

present a series of quantile regression models where we include an indicator for female and an interaction with negotiation.

Decomposition analysis

The final component of the analysis uses the decomposition approach described in Brown, Moon and Zoloth (1980) to provide some insight into the contribution of employee-employer negotiation to the gender wage gap in Australia. This approach extends the Oaxaca decomposition and allows for differences in observed wages between men and women to be decomposed into explained and unexplained components based on reported negotiation status. While descriptive in nature, it allows the inter-job differences between men and women across job types (those with and without negotiation) to be identified separately from the intra-job differences. More specifically, we decompose the gender wage gap across jobs with and without negotiation as follows:

$$\begin{aligned} \overline{\ln W^m} - \overline{\ln W^f} = & \sum_{n=0}^1 P_n^f \overline{X_n^f} (\hat{\beta}_n^m - \hat{\beta}_n^f) + \sum_{n=0}^1 P_n^f \hat{\beta}_n^m (\overline{X_n^m} - \overline{X_n^f}) \\ & + \sum_{n=0}^1 \overline{\ln W_n^m} (P_n^m - \hat{P}_n^f) + \sum_{n=0}^1 \overline{\ln W_n^m} (\hat{P}_n^f - P_n^f) \end{aligned}$$

where P_n^m and P_n^f are the proportion of male (m) and female (f) workers employed in jobs with ($n=1$) and without ($n=0$) negotiation. The term \hat{P}_n^f is an estimate of the counterfactual proportion of female workers in job n , that would result if women retain their own characteristics ($\overline{X_n^f}$) but enter jobs in the same way as men. The first two terms weight the job-specific gender wage gap by women's actual distribution across jobs with and without negotiation. The first term reflects *unexplained* intra-job wage differences (differences in returns to productive characteristics), while the second term captures *explained* intra-job wage differences (differences in productive characteristics) between men and women working in job n . Inter-job wage differences are represented in the third and fourth term of the equation. The third term weights the mean male wage in each job by the difference in the observed male proportion and counterfactual female proportion in those types of jobs. This is the *explained* inter-job wage differential: a wage differential that stems from differences in characteristics between men and women that are associated with men and women working in different jobs. The last term is the *unexplained* inter-job wage differential, which results from a change in the proportion of women working in job n if women were to retain their own characteristics but enter each type of job at the same rate as men with similar characteristics. If gender differences in the *propensity* to negotiate pay are an important contributor to the gender wage gap, we expect to see a significant contribution from the inter-job wage differentials ($P_n^m, \hat{P}_n^f, P_n^f$). Gender differences in returns to negotiation are

captured in intra-job wage differences: either explained in $(\bar{X}_n^m - \bar{X}_n^f)$ or unexplained in \bar{X}_n^f $(\hat{\beta}_n^m - \hat{\beta}_n^f)$.

5. Results

The opportunity to negotiate pay

The first set of estimates seeks to provide insight into understanding the availability of negotiation opportunities and the extent they differ between males and females. The response to this question is likely to reflect, at least in part, self-selection or sorting by individuals into particular types of jobs (Hall and Krueger 2012, Brenzel et al. 2014, Leibbrandt and List 2015). It is likely that individuals who are adept at negotiating, or those for whom the returns from negotiation are higher, are more likely to self-select into those positions that offer the opportunity to negotiate. To shed light on this, the first set of estimates analyze whether the opportunity to negotiate differs by gender after controlling for a variety of observed individual, job and firm characteristics, including occupation and industry.

Table 2 presents results from a probit analysis indicating whether an individual has the opportunity to negotiate wages with the employer (equation (1)). Columns (1)-(3) include an increasing number of observable characteristics that are likely to be associated with the opportunity to negotiate. In terms of demographics, the results in Table 2 do not show a clear age profile in the opportunity to negotiate. However, there is a clear profile in tenure with the employer, where individuals with tenure of less than one year are most likely to report having the opportunity to negotiate over pay. Artz, Goodall and Oswald (2016) find a similar result for whether Australian workers' wages are negotiable. There is some evidence that the opportunity to negotiate is inversely related to the individual's level of education, though jobs which require higher levels of skill are associated with a significantly greater propensity on the part of the respondent to report having the opportunity to negotiate. In a similar fashion Brenzel, Gartner and Schnabel (2014) found a positive relation between skills and whether wages were identified as negotiable. As expected, individuals in jobs with managerial and supervisory responsibilities are significantly more likely to report having the opportunity to negotiate. In comparison, part-time workers and those employed in the public sector are substantially less likely to report having the opportunity to negotiate over pay. Artz, Goodall and Oswald (2016) also find that wages are increasingly likely to be negotiable as the number of hours worked rises.

The key variable of interest for the present analysis is gender. Note that the raw gender gap in the opportunity to negotiate pay is around 13.8 percentage-points. Across specifications (1) to (3) in Table 2 the estimates indicate that women remain substantially less likely to report

having the opportunity to negotiate over pay. Part-time work and sector are key variables explaining the substantial (4 percentage-points) reduction in the gender gap visible in column (2). Including all the control variables explains about 9 percentage-points (or 65%) of the gender gap from the raw data. That is, after controlling for a wide range of observable individual and job level characteristics it remains the case that women are substantially less likely to report having the opportunity to negotiate over their pay. In contrast, Leibbrandt and List (2015) find that females are more likely to sort into jobs where the opportunity for negotiation is *explicitly* provided for. In the present analysis, however, it is not known whether the job was presented or advertised in a way that was explicit about the opportunity to negotiate. It may be the case, for example, that the gender gap in the opportunity to negotiate reflects in part, differences in ‘opportunity to negotiate’ as perceived by males and females (Babcock *et al.* 2006) or differential treatment of females by employers.

Negotiating over pay.

In Table 3 we present results from models that examine who engages in actual pay negotiation with their employer. Specifications (1) and (2) use the conditional sample, while specifications (3) and (4) repeat the analysis using the full sample. Recall that some literature suggests that females are ‘less likely to ask’ and that this reluctance in part explains the poorer outcomes experienced by females across a range of domains including employment relationships. Specifications (1) and (2) consider that possibility directly by examining the correlates of actual negotiation conditional on the opportunity to do so. The final specification reported in Table 3 considers whether the individual reports negotiating over *pay and conditions* at the start of their current employment relationship.

The results from the analysis indicate that older individuals (56 to 65 years) are the least likely to actually negotiate over pay across both the conditional and full samples. Conditional on the opportunity to do so, this group of individuals is around 7 percentage points less likely to negotiate relative to younger workers (Table 3 columns 1 and 2). In general the education variables are insignificant, though actual negotiation is more likely among workers in jobs that require higher skill levels. Relative to the base category, individuals in jobs with the highest skill levels are 23 to 16 percentage points more likely to report actually negotiating in the conditional and full samples respectively (Table 3 columns 2 and 4). As expected, individuals who report having a managerial role report being substantially more likely to actually negotiate given the opportunity to do so, *ceteris paribus*. Other characteristics of employment also influence the likelihood that individuals actually negotiate over pay. Consistent with the results reported in Hall and Krueger (2012), part-time workers and those in workplaces in which unions have a presence are significantly less likely to report actually negotiating over pay. In a similar fashion,

Artz, Goodall and Oswald (2016) find that work hours are an important determinant of the propensity to ask for a pay rise.

The main variable of interest again relates to gender. The raw gender gap in negotiation, conditional on having the opportunity to do so, is 2.8 percentage points.⁶ Here the evidence, however, suggests that females are not less likely to negotiate conditional on the opportunity to do so. In neither specification (1) nor (2) is the gender coefficient significant. The key variables eliminating the gender gap are position (supervisory and managerial roles) and part-time work.⁷ Moreover, when those who do not report having the opportunity to negotiate are included in the regressions, the female indicator remains insignificant (columns 3 and 4). The results presented in Table 3 are consistent with those identified in Leibbrandt and List (2015). In that study, the gender gap in negotiation over pay is no longer apparent once wages are explicitly advertised as negotiable. Here, gender differences in negotiation are no longer apparent for those who have the opportunity to negotiate. Similarly, Gerhart and Rynes (1991) find that the raw gender gap in the probability of negotiating wages of 7 percent in their sample of MBA graduates is eliminated once a range of factors including those affecting a negotiator's bargaining power are accounted for.

Two additional aspects of the analysis of actual negotiation reported Table 3 are of note. First, note that the estimates reported in columns (3) and (4) are analogous to those reported in Hall and Krueger (2012). In that paper those identified as not negotiating include those who had the opportunity to negotiate but chose not to do so along with individuals who did not have an opportunity to negotiate. That is, in the Hall and Krueger (2012) study it was not possible to separately identify those who had the *opportunity* to negotiate. It was thus not possible to draw inferences about those who had the opportunity to negotiate but chose not to do so. In comparison, the estimates reported in Table 3 columns (1) and (2) are a direct comparison of those who do and do not report actually negotiating *conditional* on having the opportunity to do so. Among this group, tenure and level of skill are particularly important in terms of determining who actually negotiates. Actual negotiation is highest at tenure of between one and five years. Such a pattern may be consistent, for example, with the nature of the employer-employee match having become clearer along with the extent of any surplus available after an initial spell in the job. Other than for managers, occupation does not appear to be an important determinant of whether negotiation actually occurs. Whether the individual often works overtime and a belief by the employee that 'more and more is expected of me for the same amount of pay' are also positively related to the likelihood that actual negotiation is reported by the respondent.

⁶ In the full sample, the raw gender gap in actual negotiation is 6.1 percentage points.

⁷ In line with our findings, Artz, Goodall and Oswald (2016) also find that hours of work substantially reduce the gender gap in having asked for a pay rise.

The results in Table 2 and Table 3 suggest that the set of observed characteristics included in the empirical specifications are better predictors of whether an individual has an opportunity to negotiate (Table 2), relative to whether an individual engages in negotiation conditional on the opportunity to do so (Table 3). In particular, a comparison of goodness-of-fit measures indicates that the covariates in the ‘opportunity to negotiate’ specifications (Table 2) explain more of the observed variation in outcomes than those in the ‘actual negotiation’ specifications.⁸ This pattern is consistent with those individuals who have the opportunity but nonetheless do not negotiate being similar to those who actually negotiate across observed characteristics included in the empirical specifications. In other words, it is unobserved characteristics that distinguish whether negotiation occurs conditional on the opportunity to do so. This potentially includes personality traits, risk attitudes and gender identity. In addition, considerations such as the distribution of bargaining power, situational aspects of the negotiation context such as framing of a negotiation opportunity and gender of the evaluator may also be important (Small et al 2007; Bowles, Babcock and Lai, 2007).

The final column of Table 3 presents results around negotiation over *pay and conditions* at the start of employment. *A priori* it might be expected that females are *more* likely to negotiate over the non-wage aspects or conditions of employment. Given a raw gender gap of 10.2 percentage points, the estimates in fact suggest that females are approximately 6 percentage points *less* likely to report negotiating over pay and conditions relative to males. It is important to note that these results differ to those reported in Table 3 columns (1)-(4) where the question of ‘actual negotiation’ is considered and like the specifications in columns (3) and (4) use the full sample. Moreover, the results are similar to those reported in Table 2 which considered the opportunity to negotiate and highlight a substantial gender gap in negotiation outcomes around *pay and conditions* at the commencement of job spells.⁹

Negotiation and wage levels

The final set of estimates (Table 4 to Table 8) focus on the wage outcomes achieved and seek to shed light on the relationship between negotiation and wage levels for males and females. As noted, standard log wage regressions using OLS are presented (Table 4, Table 5 and Table 6),

⁸ Rather than a comparison of the pseudo-R-squared measures reported in Table 2 and Table 3, a series of linear probability models (LPM) using the same set of covariates were estimated. The R-squared resulting from these LPMs indicate that 23.3 percent of the variation in the ‘opportunity to negotiate’ is explained by the included covariates compared to 5.3 percent of the variation in ‘actual negotiation’ conditional on the opportunity to do so.

⁹ It is notable that having flexibility around the number of hours and when those hours are worked hours appears to be complementary to the opportunity to negotiate pay. In particular, indicators that the individual has ‘flexibility in the number of hours worked’ and ‘flexibility when those hours are worked’ in the ‘*Opportunity to negotiate*’ equation are large and positive. Conversely, both indicators are insignificant in the actual negotiation specifications. Results from these specifications are available on request.

along with a series of quantile regressions given existing evidence that the gender wage gap varies across the wage distribution (Table 7 and Table 8). In all cases, only the main results of interest relating to gender and negotiation are presented though other control variables such as age, education and occupation are also included in various specifications.¹⁰

In terms of the gender wage gap the results are consistent with *a priori* expectations. Consider the results reported in Table 4 and Table 5. The estimates indicate a persistent gender wage gap of between 9 and 15 percent depending on the covariates included. This is largely in line with existing literature and reflects the lower observed wages for females even after controlling for a range of observable characteristics such as age, occupational and educational choices.

Using the conditional sample (Table 4) there is evidence that actual negotiation is associated with higher wage outcomes of between 3.4 and 4.5 percent, *ceteris paribus*.¹¹ The return from negotiation is similar when the full sample is used (Table 5), and in both samples the results are statistically significant.¹² Of particular interest is how the returns from actual negotiation differ across men and women. In this context, there is no evidence that women experience worse outcomes relative to men when actually engaging in negotiation, with interaction terms between gender and *ActNeg_{it}* negative but statistically insignificant across both the conditional and full samples (Table 4 and Table 5 respectively). Note that once we condition on additional job characteristics, both the return to negotiation for males and the (insignificant) gender differential decline (Table 4 and Table 5).¹³

The current analysis has not accounted for potential unobserved heterogeneity that might be driving both actual negotiation and wages. The panel nature of the data allows for individual-specific fixed effects regressions, of which the results are presented in Table 6. Results using both the conditional sample (columns 1 and 2) and the full sample (columns 3 and 4) are presented. Note that in these specifications non time-varying covariates are dropped so it is only possible to incorporate interaction terms between negotiation (actual or opportunity) and gender. Consistent with *a priori* expectations the effect of negotiation on hourly wages in these specifications is somewhat more muted, being in the order of 2-3 percent. Unobserved heterogeneity across individuals is likely to play a role in wage outcomes and dampen the impact of negotiation. Nonetheless, again the interaction term between negotiation and gender is insignificant suggesting that conditional on actual negotiation, females fare no worse than their male counterparts with respect to wages, *ceteris paribus*.

¹⁰ Coefficients on other regressors are largely consistent with *a priori* expectations and complete results are available upon request.

¹¹ This is very similar to the monetary returns found by Gerhart and Rynes' (1991), though for MBA graduates.

¹² Note that having an opportunity to negotiate is also associated with a higher wage, though only for women.

¹³ Since we compute hourly wages based on earnings and usual hours worked, there is a potential concern regarding division bias. An analysis using weekly earnings and a polynomial in hours yields results similar to Tables 4 and 5. Results are available upon request.

The final sets of results presented relate to a series of conditional quantile regressions for the conditional and full samples (Table 7 and Table 8 respectively).¹⁴ Existing evidence suggests that the gender wage gap is not constant along the wage distribution, and that females may experience a ‘sticky floor’ or a ‘glass ceiling’ with a larger wage gap at higher points in the wage distribution. A number of patterns emerge from the quantile regression estimates. First, there is evidence that the wage gap is indeed increasing over the wage distribution. At the 20th percentile, the gender gap is approximately 9 percent, rising to 19 percent at the 80th percentile (Table 7). The results in panel A of Table 7 indicate that actual negotiation is important and is associated with 4-5 percent higher wages in the upper half of the wage distribution. There is little evidence that negotiation adds to wages in the lower half of the distribution with an insignificant 2 percent premium associated with negotiation. In panel B, interaction terms between actual negotiation and gender are included in the specification. Similar to the regressions reported earlier, again there is no evidence that females fare worse compared to their male counterparts who actually negotiate with the interaction terms negative but insignificant. When the full sample is used in the analysis a similar pattern is identified (Table 8). That is, while the return from negotiation tends to increase across the wage distribution, there is little or no evidence that females who negotiate suffer lower wages than their male counterparts who also negotiate. In addition to the conditional quantile models, a series of unconditional quantile regressions were estimated (Firpo, Fortin and Lemieux 2009). The results from those models are quantitatively similar to those reported in Table 7 and Table 8. Positive returns to negotiation are found mainly in the top half of the wage distribution, signaling that negotiation tends to widen the wage distribution.¹⁵

In contrast to existing literature, our wage analysis can also inform us about the *outcomes* of workers who had the opportunity to negotiate but chose not to do so. Table 5 (column 2) indicates that having a negotiation opportunity is associated with higher wages, but this wage gain is less than when engaging in actual negotiation. However, column (3) seems to indicate that this gain is only there for women.

Decomposition analysis

In this section we investigate the role of gender differences in negotiation in producing the gender pay gap. The overall gender pay gap in our conditional sample is approximately 17 percent, with a slightly higher gap (18 percent) in jobs with negotiation. The decomposition by

¹⁴ The data indicate that both negotiation opportunities and actual negotiation occur throughout the wage distribution. Workers in the third quartile report fewer opportunities to negotiate pay, while actual negotiation is slightly more likely to occur in the upper half of the wage distribution. The raw gender gap in negotiation opportunities is higher in the upper half of wage distribution than in the bottom half (16 percentage points vs. 11 percentage points). The raw gender gap in actual negotiation propensities is rather small across quartiles, though it is somewhat higher in the upper half of the distribution.

¹⁵ Full results are available upon request.

Brown, Moon and Zoloth (1980) allows the overall gender wage gap to be decomposed into intra-job wage differences and inter-job wage differences, where the latter reflects differential selection into jobs with and without negotiation and associates this with mean wage differences between jobs.

In Table 9 (Table 10) we present the decomposition results for our conditional (full) samples. Among those with the opportunity to negotiate, approximately 38 percent of men report negotiating over wages (P_1^m) compared to around 35 percent of women (P_1^f). Using a probit analysis for men and women separately, we construct the counterfactual proportion of women in jobs with negotiation. If women retain their own characteristics but enter jobs with negotiation at the rate of equally qualified men, there is only a small increase in the proportion of women allocated to jobs in which negotiation occurs ($\hat{P}_1^f = 0.354$). This implies that differential allocation to jobs is largely explained by observed characteristics.

The analysis indicates that a large part of the gender wage differential is due to intra-job differentials (17.1 percentage points), with a large part of the difference remaining unexplained (11.2 percentage points). That is, men and women receive different returns to their characteristics within jobs. Allowing for inter-job wage differentials contributes only a small part to the gender wage gap in the order of 0.25 percentage points. The results in Table 10 using the full sample show a similar pattern with the majority of the gender wage gap associated with intra-job differentials. Moreover, it remains the case that wage differences are attributable to differences in the returns to characteristics within job types.

6. Conclusion

In this paper, we have considered the role of gender and negotiation in the employment relationship. In particular, we have considered whether women are more or less likely to have the opportunity to negotiate pay, and given the opportunity to negotiate, whether they are more or less likely to actually negotiate compared to their male counterparts. Finally, we examine the role of individual level negotiation over pay and whether there are differential returns to negotiation by gender. The analysis has been motivated by a number of considerations. Foremost, existing empirical evidence from a range of disciplinary perspectives suggests that women are ‘less willing to ask’ and in the event they do, ‘ask for less’. Unlike a number of earlier studies we use real world data to assess these issues and the longitudinal nature of the data allows for unobserved heterogeneity to be controlled for. Existing empirical evidence is largely experimental or comes from very specific groups of individuals that are not readily generalized.

The empirical analysis suggests that women are less likely to report having the opportunity to negotiate over wages compared to their male counterparts. Moreover, such a pattern persists after controlling for a range of observable characteristics such as occupation, industry and part-time status. Given the opportunity to negotiate, however, women are no less likely to actually negotiate. Our results align with evidence from an experimental setting that finds that women are no less likely to negotiate than men when the opportunity to do so is present (Leibbrandt and List 2015). Importantly, the analysis is based on non-experimental data and is not confined to the outcomes at the start of the employment relationship. Further, we find that negotiation is not associated with poorer wage outcomes for women relative to their male counterparts. Negotiation does, however, appear to have positive impacts on wage outcomes with those individuals who report negotiating over pay experiencing significantly higher wages, *ceteris paribus*. The wage results are robust across specifications that consider the impact of negotiation at the mean and across the wage distribution using quantile regression methods. The wage gains associated with negotiation appear to be more pronounced at higher points in the wage distribution.

There are clearly a number of limitations associated with the present analysis. For example, detailed information about the negotiation process is not available. It is unknown how the negotiation was initiated and the gender of the other negotiating party. Existing literature highlights how all of these may be important for understanding the negotiation process and its outcomes. It has been suggested, for example, that differences in opportunities to negotiate might reflect different perceptions of any offer that is made and the possibility of negotiating (Babcock *et al.* 2006). To this end, additional insight into the process by which bargaining is determined and the specific nature of interaction between employers and employees would be highly valuable. Notwithstanding this, the analysis provides insight into the impact of negotiation using real world data and arguably is more readily generalized than existing studies on the impact of negotiation on wage and related outcomes.

The results of the empirical analysis can potentially be interpreted as evidence that negotiation should be encouraged. Negotiation is associated with significantly higher wage outcomes and women appear to do no worse than men in the event they negotiate over pay. While such a literal interpretation of the analysis is appealing, a key result from the analysis is that women ostensibly have fewer opportunities to negotiate. On one level, such a result suggests that females are constrained not by their inability to negotiate, but rather the limited opportunity to negotiate. A number of *caveats* are in order for such a conclusion. First, to date the analysis does not control for how employees potentially select into employment positions that provide the ‘opportunity to negotiate’. Further, such an interpretation does not take into account what might happen in relatively low wage occupations that are predominantly filled by females if institutional safeguards such as minimum or award wages are removed. Indeed, existing

literature on the gender wage gap points at centralized wage setting systems as reducing the gender pay gap at the bottom (Blau and Kahn 2003). Hence, a move towards greater individual level negotiation may leave some individuals, especially women, worse off. Such an outcome is likely to be exacerbated if women with a dislike or poor negotiation skills unrelated to productivity sort into jobs supported by award wages.

It is also important to note that the data used in this analysis does not provide insight into the cause for this gap in negotiation opportunities. It is possible that this gap reflects a lack of real negotiation opportunities being offered to women in the workplace driven by factors such as discrimination by employers (Artz, Goodall and Oswald 2016). Alternatively, it is possible that differences in opportunities to negotiate are driven by perceptions by women and a failure to recognize the possibility of negotiation (Babcock et al., 2006). To date there is only a limited amount of literature which deals with the gender differences in perceptions in situations such as those associated with wage setting. If we posit that it is an actual lack of negotiation opportunities for female workers, then arguably employers need to be proactive in offering more opportunities for negotiation to women. Importantly, the manner in which these opportunities are offered and the phrasing of such opportunities may be crucial. Using gender-neutral language, such as framing a situation as “an opportunity to ask” rather than “an opportunity to negotiate” might support women in making their case (Small et al. 2007). Alternatively, if the gender gap in negotiation opportunities is driven by differences in perceptions, then it may be that an appropriate policy response is one that ensures that all employees, especially women, are equipped to identify such opportunities.

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Appendix 1 – Description of variables

(i) Opportunity to negotiate – in waves 1 to 5 respondents are asked:

Thinking about your pay [in your main job], do you feel that you have the opportunity to negotiate this with your employer?

(ii) Opportunity to negotiate at commencement of employment – in waves 3 to 5 respondents are asked:

Thinking back to when you commenced your employment were your own pay and conditions negotiated with your employer?

(iii) Actual negotiation – in waves 3 to 5 respondents are asked:

Have you actually negotiated your pay with your employer in the last year or since you started your job [if held job for less than one year]?

(iv) Industry vacancy rates

These vacancy rates by year and industry are constructed using ABS data on the stock of job vacancies by industry over the total number of employed persons by industry (both for November of each year):

ABS 6354.0 JOB VACANCIES, Australia, TABLE 4. Job Vacancies, Industry, Australia ('000) – Original data, quarterly

ABS 6291.0.55.003 Table 4 Employed Persons by Industry - Original data, quarterly

Table 1: Descriptive Statistics

	Full Sample	Opportunity to negotiate pay	Actual negotiation pay
Female	0.494	0.408	0.390
Hourly wage	28.04	29.11	30.45
Pay Negotiation opportunity	0.404	1.000	1.000
Pay Neg.actual Negopp=1	0.364	0.364	1.000
Negotiation at start e/ment	0.355	0.634	0.748
#individuals	5361	2916	1423
Age (yrs)	42.44	41.58	41.39
Education level			
<i>Less than HS</i>	0.135	0.152	0.138
<i>High School</i>	0.128	0.132	0.115
<i>Dipl/Cert/Trade Qual</i>	0.326	0.349	0.355
<i>Degree/Postgrad degr</i>	0.411	0.367	0.393
Tenure			
<i>0-1yr</i>	0.162	0.195	0.146
<i>1-5 yrs</i>	0.365	0.414	0.474
<i>6-14yrs</i>	0.290	0.266	0.277
<i>15+ yrs</i>	0.183	0.125	0.103
Required job skills			
<i>Highly specialized skills</i>	0.426	0.416	0.460
<i>Advanced skills</i>	0.108	0.116	0.115
<i>Medium skills</i>	0.116	0.138	0.128
<i>Basic skills</i>	0.247	0.242	0.229
<i>Unskilled</i>	0.103	0.089	0.067
Job position			
<i>Managerial</i>	0.199	0.294	0.371
<i>Supervisory</i>	0.185	0.189	0.207
<i>Other</i>	0.616	0.517	0.422
PT work	0.280	0.213	0.162
Occupation (1-digit ANZSCO)			
<i>Managers</i>	0.127	0.190	0.239
<i>Professionals</i>	0.317	0.253	0.247
<i>Tech.ans & Trades w/ers</i>	0.112	0.137	0.120
<i>Com. & Pers. Serv. w/ers</i>	0.104	0.062	0.052
<i>Clerical & Admin. w/ers</i>	0.168	0.174	0.172
<i>Sales workers</i>	0.068	0.078	0.072
<i>Mach. O/ators & Labourers</i>	0.104	0.106	0.098

Table 1: Descriptive Statistics (*cont*)

	Full Sample	Opportunity to negotiate pay	Actual negotiation pay
Sector			
<i>Private</i>	0.550	0.753	0.760
<i>Public</i>	0.348	0.150	0.133
<i>Non-profit</i>	0.103	0.097	0.107
Workplace size			
<i>1-19</i>	0.294	0.397	0.407
<i>20-100</i>	0.339	0.316	0.306
<i>>100</i>	0.363	0.285	0.286
Union in workplace	0.555	0.375	0.345
Industry (1-digit ANZSIC)			
<i>Agriculture & Mining</i>	0.027	0.038	0.039
<i>Manufacturing</i>	0.097	0.139	0.146
<i>Constr, Electr., gas, water services</i>	0.055	0.079	0.083
<i>Wholesale & Retail trade</i>	0.100	0.128	0.118
<i>Accom. & food services + Transport, postal and warehousing</i>	0.071	0.067	0.063
<i>Info, media & telecom, Finance & insur. services</i>	0.065	0.082	0.086
<i>Rental, hiring & real estate service</i>	0.012	0.021	0.026
<i>Professional, scientific and technical</i>	0.070	0.114	0.120
<i>Admin & support services</i>	0.023	0.028	0.030
<i>Public admin & safety</i>	0.128	0.070	0.067
<i>Education & training</i>	0.164	0.079	0.070
<i>Health care & social assistance</i>	0.146	0.093	0.085
<i>Arts & recreation & other services</i>	0.044	0.062	0.065
Industry vacancy rate	0.014	0.016	0.016
Often (working) overtime	0.362	0.375	0.429
More & more expected (in the job)	0.579	0.461	0.494
Single	0.293	0.273	0.252
Partner Not working	0.113	0.130	0.134
N	13,665	5,515	2,010

Table 2: Opportunity to negotiate.

	(1)	(2)	(3)
Female	-0.106*** (-12.14)	-0.065*** (-5.98)	-0.049*** (-4.27)
Age 26-35	0.012 (0.70)	0.013 (0.64)	0.014 (0.71)
Age 36-45	0.006 (0.34)	0.018 (0.95)	0.020 (1.08)
Age 46-55	-0.035* (-2.08)	-0.008 (-0.43)	-0.003 (-0.14)
Age 56-65	-0.037 (-1.92)	-0.021 (-0.99)	-0.014 (-0.63)
Educ: High School (HS)	-0.088*** (-5.43)	-0.076*** (-4.25)	-0.083*** (-4.64)
Educ: Dipl/Cert/Trade Qualification	-0.086*** (-6.17)	-0.054*** (-3.54)	-0.061*** (-3.92)
Educ: Degree/Postgrad degree	-0.179*** (-11.59)	-0.083*** (-4.67)	-0.082*** (-4.52)
Tenure 1-5yrs	-0.047*** (-3.74)	-0.044** (-3.07)	-0.045** (-3.15)
Tenure 6-14yrs	-0.141*** (-10.93)	-0.095*** (-6.42)	-0.095*** (-6.32)
Tenure 15+	-0.248*** (-19.77)	-0.158*** (-10.05)	-0.161*** (-10.15)
Skills: Highly specialized	0.087*** (4.92)	0.267*** (5.84)	0.247*** (5.24)
Skills: Advanced	0.084*** (4.18)	0.192*** (6.45)	0.178*** (5.77)
Skills: Medium	0.131*** (6.72)	0.174*** (5.70)	0.157*** (4.97)
Skills: Basic	0.069*** (4.21)	0.108*** (5.07)	0.114*** (5.23)
Position: Managerial	0.302*** (26.31)	0.201*** (13.53)	0.198*** (13.10)
Position: Supervisory	0.104*** (8.73)	0.076*** (5.90)	0.080*** (6.12)
PT work	-	-0.074*** (-6.23)	-0.062*** (-5.08)
Public Sector	-	-0.305*** (-28.78)	-0.257*** (-17.66)
Non-Profit sector	-	-0.135*** (-9.32)	-0.096*** (-5.55)
Occupation: Managers	-	-0.024 (-0.55)	-0.002 (-0.06)
Professionals	-	-0.113* (-2.49)	-0.084 (-1.80)

Tech.ans & Trades w/ers	-	-0.043 (-1.44)	-0.040 (-1.24)
Com. & Pers. Serv. w/ers	-	-0.103*** (-4.07)	-0.066* (-2.24)
Clerical & Admin. w/ers	-	0.033 (1.30)	0.031 (1.12)
Mach. Operators & Labourers	-	-0.041 (-1.80)	-0.046 (-1.84)
Workplace size 20-100	-	-0.074*** (-6.12)	-0.065*** (-5.27)
Workplace size 101+	-	-0.100*** (-7.76)	-0.091*** (-6.84)
Union in Workplace	-	-0.112*** (-9.78)	-0.093*** (-7.86)
Agriculture & Mining	-	-	-0.067 (-1.71)
Manufacturing	-	-	0.053* (2.20)
Construction, Electr, Gas, Water Supply	-	-	0.101*** (3.55)
Accom. & food serv., trans., post. & w/housing	-	-	-0.056* (-2.38)
Info, media & telecom, Fin. & insur. services	-	-	-0.048* (-1.98)
Rental, hiring & real estate service	-	-	0.110* (2.25)
Professional, scientific and technical	-	-	0.098*** (3.58)
Admin&support services	-	-	-0.081 (-1.68)
Public admin &safety	-	-	-0.060* (-2.33)
Education & training	-	-	-0.082** (-3.02)
Health care & social assistance	-	-	-0.074** (-3.08)
Arts & recreation & other services	-	-	0.079* (2.57)
Industry job vacancy rate	-	-	0.015 (1.43)
N	13665	12564	12429
Pseudo-R2	0.0786	0.180	0.189
Prob in reference group	0.533	0.651	0.594
Prob in sample	0.404		

Marginal effects; *t* statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Opportunity to negotiate pay: waves 3-5; full sample; reference = male, age 18-25, educ=less than HS, tenure=0-1yrs, unskilled, position: other, FT work, sector=private, occ1d=sales workers, workplace size=1-19, no union in workplace, ind1d=wholesale and retail trade.

Table 3: Actual negotiation.

Dependent variable	(1)	(2)	(3)	(4)	(5)
	NegAct	NegAct	NegAct	NegAct	NegStart
Female	0.005 (0.28)	0.003 (0.18)	-0.012 (-1.72)	-0.012 (-1.69)	-0.064*** (-5.06)
Age 26-35	0.018 (0.59)	0.014 (0.46)	0.009 (0.70)	0.001 (0.09)	-
Age 36-45	-0.030 (-1.12)	-0.036 (-1.27)	-0.007 (-0.62)	-0.016 (-1.43)	-
Age 46-55	-0.034 (-1.25)	-0.040 (-1.38)	-0.013 (-1.17)	-0.022 (-1.93)	-
Age 56-65	-0.072* (-2.31)	-0.077* (-2.40)	-0.026* (-2.19)	-0.035** (-2.99)	-
Educ: High School (HS)	-0.022 (-0.81)	-0.025 (-0.90)	-0.028** (-2.82)	-0.027** (-2.70)	-0.037 (-1.72)
Educ: Dipl/Cert/Trade Qualification	0.008 (0.36)	0.005 (0.23)	-0.010 (-1.12)	-0.011 (-1.19)	0.005 (0.28)
Educ: Degree/Postgrad degree	0.013 (0.47)	0.006 (0.24)	-0.013 (-1.15)	-0.014 (-1.33)	0.024 (1.14)
Tenure 1-5yrs	0.126*** (6.17)	0.121*** (5.89)	0.037*** (3.97)	0.038*** (4.09)	-
Tenure 6-14yrs	0.086*** (3.72)	0.081*** (3.48)	0.007 (0.73)	0.008 (0.81)	-
Tenure 15+	0.023 (0.82)	0.016 (0.55)	-0.034*** (-3.36)	-0.030** (-2.96)	-
Skills: Highly specialized	0.228*** (3.50)	0.220*** (3.36)	0.155*** (4.86)	0.147*** (4.65)	-
Skills: Advanced	0.124** (2.61)	0.121* (2.54)	0.010*** (3.87)	0.094*** (3.70)	-
Skills: Medium	0.106* (2.27)	0.103* (2.20)	0.086*** (3.43)	0.082*** (3.31)	-
Skills: Basic	0.074* (2.19)	0.069* (2.03)	0.058*** (3.72)	0.053*** (3.44)	-
Position: Managerial	0.137*** (6.66)	0.128*** (6.16)	0.118*** (10.30)	0.115*** (9.99)	-
Position: Supervisory	0.104*** (5.25)	0.098*** (4.90)	0.064*** (6.84)	0.064*** (6.80)	-
PT work	-0.055** (-2.82)	-0.046* (-2.30)	-0.035*** (-4.84)	-0.039*** (-5.37)	-
Public Sector	-0.002 (-0.07)	-0.001 (-0.05)	-0.082*** (-8.81)	-0.079*** (-8.47)	-0.260*** (-15.76)
Non-Profit sector	0.045 (1.55)	0.048 (1.63)	-0.010 (-0.86)	-0.008 (-0.72)	-0.059** (-2.91)
Occupation: Managers	-0.127* (-2.38)	-0.124* (-2.30)	-0.045* (-2.28)	-0.043* (-2.17)	0.377*** (14.02)

Professionals	-0.172** (-3.09)	-0.167** (-2.98)	-0.082*** (-3.70)	-0.078*** (-3.54)	0.191*** (6.58)
Tech.ans & Trades w/ers	-0.103* (-2.52)	-0.100* (-2.44)	-0.045** (-3.03)	-0.043** (-2.88)	0.068* (2.30)
Com. & Pers. Serv. w/ers	-0.054 (-1.21)	-0.053 (-1.19)	-0.037* (-2.44)	-0.034* (-2.24)	0.074* (2.27)
Clerical & Admin. w/ers	-0.020 (-0.53)	-0.014 (-0.38)	-0.000 (-0.02)	0.002 (0.13)	0.142*** (5.01)
Mach. Operators & Labourers	0.033 (0.86)	0.031 (0.82)	-0.003 (-0.19)	-0.003 (-0.20)	-0.050 (-1.86)
Workplace size 20-100	-0.026 (-1.47)	-0.030 (-1.66)	-0.023*** (-3.30)	-0.022** (-3.10)	-0.053*** (-3.82)
Workplace size 101+	-0.004 (-0.20)	-0.011 (-0.51)	-0.026** (-3.26)	-0.025** (-3.15)	-0.070*** (-4.46)
Union in Workplace	-0.050** (-2.73)	-0.051** (-2.78)	-0.041*** (-5.47)	-0.041*** (-5.47)	-0.081*** (-5.88)
Agriculture & Mining	0.058 (0.96)	0.070 (1.15)	0.008 (0.32)	0.006 (0.24)	-0.026 (-0.76)
Manufacturing	0.049 (1.53)	0.050 (1.58)	0.033* (2.13)	0.032* (2.06)	0.057* (2.15)
Construction, Electr, Gas, Water	0.038 (1.05)	0.036 (1.01)	0.046* (2.44)	0.041* (2.22)	0.080** (2.59)
Accom/food, transp., post., w/hous	0.031 (0.85)	0.032 (0.86)	-0.002 (-0.08)	-0.003 (-0.20)	-0.056* (-2.08)
Info, media & telecom, Fin. & insur.	0.018 (0.52)	0.019 (0.53)	-0.002 (-0.14)	0.00 (0.02)	-0.028 (-0.95)
Rental, hiring & real estate service	0.108 (1.95)	0.102 (1.83)	0.083* (2.48)	0.078* (2.34)	0.062 (1.31)
Professional, scientific and technical	0.039 (1.17)	0.041 (1.24)	0.041* (2.37)	0.037* (2.18)	0.117*** (3.84)
Admin & support services	0.108 (1.46)	0.117 (1.58)	0.029 (0.83)	0.029 (0.84)	-0.116*** (-3.54)
Public admin & safety	0.019 (0.45)	0.021 (0.48)	-0.011 (-0.69)	-0.014 (-0.85)	-0.041 (-1.33)
Education & training	-0.002 (-0.04)	-0.009 (-0.21)	-0.031* (-2.02)	-0.031* (-2.00)	-0.189*** (-7.69)
Health care & social assistance	-0.001 (-0.01)	-0.002 (-0.05)	-0.023 (-1.63)	-0.021 (-1.47)	-0.112*** (-4.32)
Arts & recreation & other services	0.043 (1.07)	0.039 (0.97)	0.039 (1.92)	0.034 (1.71)	0.066* (1.99)
Industry job vacancy rate	-0.006 (-0.41)	-0.007 (-0.52)	0.000 (0.06)	0.000 (0.05)	-
Often overtime	-	0.037* (2.40)	-	0.010 (1.58)	-
More & more expected	-	0.032* (2.22)	-	-0.033*** (-5.31)	-

Single	-	-0.022 (-1.26)	-	-0.023*** (-3.46)	-
Partner not working	-	-0.027 (-1.25)	-	-0.015 (-1.80)	-
Age start employment 26-35	-	-	-	-	0.125*** (6.89)
Age start employment 36-45	-	-	-	-	0.165*** (9.67)
Age start employment 46-55	-	-	-	-	0.184*** (9.69)
Age start employment 56-65	-	-	-	-	0.258*** (8.13)
N	4926	4911	12424	12386	8790
Pseudo-R2	0.0384	0.0406	0.131	0.135	0.163
Prob in reference group	0.223	0.225	0.138	0.181	0.345
Prob in sample	0.368		0.146		0.390

Marginal effects; *t* statistics in parentheses

Actual negotiation of pay: waves 3-5; reference = male, age 18-25, educ=less than HS, tenure=0-1 yrs, unskilled, position: other, FT work, sector=private, occ1d=sales workers, workplace size=1-19, no union in workplace, ind1d=wholesale and retail trade

Columns 1-2: conditional sample; Columns 3-4: full sample; Column 5: negotiation of pay and conditions at start employment (tenure<10 yrs). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Negotiation and wages, conditional sample.

	(1)	(2)	(3)	(4)
	lnW	lnW	lnW	lnW
Female	-0.131*** (-8.57)	-0.131*** (-8.57)	-0.121*** (-7.33)	-0.0933*** (-5.81)
Actual Negotiation		0.0338** (3.05)	0.0447** (2.99)	0.0372** (2.68)
ActNeg*Female			-0.0270 (-1.21)	-0.0352 (-1.71)
wave effects	✓	✓	✓	✓
age quadratic	✓	✓	✓	✓
education	✓	✓	✓	✓
occupation	✓	✓	✓	✓
public/private	✓	✓	✓	✓
PT work	✓	✓	✓	✓
Tenure	×	×	×	✓
job skill req.	×	×	×	✓
position	×	×	×	✓
workplace size	×	×	×	✓
union workplace	×	×	×	✓
industry	×	×	×	✓
N	5080	5080	5080	4630
R2	0.372	0.374	0.374	0.479

t statistics in parentheses. Dependent variable = log real hourly wage, conditional sample, w3-5, wage outliers removed. Reference = male, age 18-25, educ=less than HS, tenure=0-1yrs, unskilled, position: other, FT work, sector=private, occ1d=sales workers, workplace size=1-19, no union in workplace, ind1d=wholesale and retail trade, wave=3 (2009). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Negotiation and wages, full sample.

	(1)	(2)	(3)	(4)
Female	-0.138*** (-15.15)	-0.135*** (-14.92)	-0.145*** (-14.38)	-0.108*** (-11.16)
Actual Negotiation		0.0348** (3.10)	0.0455** (3.01)	0.0396** (2.80)
OppNeg		0.0230** (2.59)	0.00728 (0.58)	0.0160 (1.37)
ActNeg*Female			-0.0257 (-1.13)	-0.0366 (-1.75)
OppNeg*Female			0.0350* (2.05)	0.0252 (1.59)
wave effects	✓	✓	✓	✓
age quadratic	✓	✓	✓	✓
education	✓	✓	✓	✓
occupation	✓	✓	✓	✓
public/private	✓	✓	✓	✓
PT work	✓	✓	✓	✓
tenure	×	×	×	✓
job skill req.	×	×	×	✓
position	×	×	×	✓
workplace size	×	×	×	✓
union workplace	×	×	×	✓
industry	×	×	×	✓
N	12706	12706	12706	11714
R2	0.353	0.355	0.355	0.448

t statistics in parentheses. Dependent variable = log real hourly wage, full sample, w3-5, outliers removed.

Reference = male, age 18-25, educ=less than HS, tenure=0-1yrs, unskilled, position: other, FT work, sector=private, occ1d=sales workers, workplace size=1-19, no union in workplace, ind1d=wholesale and retail trade, wave=3 (2009). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Negotiation and wages, fixed effects regression.

	(1)	(2)	(3)	(4)
Actual Neg	0.0225** (3.00)	0.0305** (3.14)	0.0174* (2.51)	0.0225* (2.48)
ActNeg*Female		-0.0196 (-1.29)		-0.0124 (-0.88)
OppNeg			0.00650 (1.09)	-0.0000803 (-0.01)
OppNeg*Female				0.0151 (1.20)
N	5080	5080	12706	12706
R2	0.0447	0.0454	0.0341	0.0344

t statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Cols 1-2: conditional sample, Cols 3-4: full sample, w3-5, wage outliers removed. Controls included for wave, age, occupation, sector (public/private/not for profit), PT work. Reference = male, age 18-25, FT work, sector=private, occ1d=sales workers, wave=3 (2009).

Table 7: Negotiation and wages: quantile regression – conditional sample

	$\tau=0.2$	$\tau=0.4$	$\tau=0.6$	$\tau=0.8$
A.				
Female	-0.0869*** (-5.67)	-0.124*** (-9.44)	-0.145*** (-10.22)	-0.189*** (-11.28)
Actual Neg	0.0277* (2.03)	0.0209 (1.79)	0.0486*** (3.86)	0.0460** (3.10)
B.				
Female	-0.0717*** (-3.82)	-0.116*** (-7.27)	-0.126*** (-7.36)	-0.183*** (-9.01)
Actual Neg	0.0487** (2.72)	0.0277 (1.83)	0.0636*** (3.89)	0.0588** (3.04)
ActNeg*Female	-0.0425 (-1.51)	-0.0181 (-0.76)	-0.0393 (-1.53)	-0.0332 (-1.09)
N	5080	5080	5080	5080

t statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ Standard errors rely on Epanechnikov kernel function (default), with Hall-Sheather's bandwidth (default). Dependent variable = log real hourly wage, conditional sample, w3-5, wage outliers removed. Controls included for wave, age, education, occupation, sector (public/private/not for profit), PT work. Reference = male, age 18-25, educ=less than HS, FT work, sector=private, occ1d=sales workers, wave=3 (2009).

Table 8: Negotiation and wages, quantile regression, full sample

	(1) $\tau=0.2$	(2) $\tau=0.4$	(3) $\tau=0.6$	(4) $\tau=0.8$
A.				
Female	-0.0888*** (-10.75)	-0.113*** (-14.46)	-0.137*** (-17.29)	-0.181*** (-18.35)
Actual Neg	0.0196 (1.67)	0.0202 (1.82)	0.0444*** (3.93)	0.0471*** (3.36)
OppNeg	0.0104 (1.17)	0.0215* (2.56)	0.0246** (2.86)	0.0258* (2.41)
B.				
Female	-0.0993*** (-9.84)	-0.120*** (-12.55)	-0.141*** (-14.53)	-0.174*** (-14.12)
Actual Neg	0.0317* (2.10)	0.0292* (2.05)	0.0590*** (4.05)	0.0644*** (3.48)
ActNeg*Female	-0.0289 (-1.21)	-0.0196 (-0.87)	-0.0285 (-1.24)	-0.0309 (-1.06)
OppNeg	-0.00477 (-0.40)	0.00898 (0.81)	0.0178 (1.57)	0.0317* (2.20)
OppNeg*Female	0.0361* (2.12)	0.0225 (1.40)	0.0141 (0.86)	-0.00615 (-0.30)
N	12706	12706	12706	12706

t statistics in parentheses. Standard errors rely on Epanechnikov kernel function (default), with Hall-Sheather's bandwidth (default). Dependent variable = log real hourly wage, full sample, w3-5, wage outliers removed. Controls included for wave, age, education, occupation, sector (public/private/not for profit), PT work. Reference = male, age 18-25, educ=less than HS, FT work, sector=private, occ1d=sales workers, wave=3 (2009).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Extended decomposition: basic sample

Intra-job differentials		Job type	Contribution
<i>Unexplained</i>	0.117	<i>Negotiation</i>	0.0462
		<i>No negotiation</i>	0.0704
<i>Explained</i>	0.055	<i>Negotiation</i>	0.0178
		<i>No negotiation</i>	0.0372
Inter-job differentials			
Explained	0.002	<i>Negotiation</i>	0.0778
		<i>No negotiation</i>	-0.0758
Unexplained	0.0003	<i>Negotiation</i>	0.0135
		<i>No negotiation</i>	-0.0132
M-F lnw differential	0.1737	Total	0.1737
Allocation across jobs	$P^m = 0.378$ n	$P^f = 0.352$ n	$\hat{P}^f = 0.356$ n

Controls: age, age2, tenure, education, job skill requirement, job position, PT status, sector, occupation.

Table 10: Extended decomposition: extended sample

Intra-job differentials		Job type	Contribution
<i>Unexplained</i>	0.117	<i>Negotiation</i>	0.0152
		<i>No negotiation</i>	0.1017
<i>Explained</i>	0.031	<i>Negotiation</i>	0.0058
		<i>No negotiation</i>	0.0247
Inter-job differentials			
Explained	0.004	<i>Negotiation</i>	0.1594
		<i>No negotiation</i>	-0.1552
Unexplained	0.001	<i>Negotiation</i>	0.0547
		<i>No negotiation</i>	-0.0533
M-F lnw differential	0.1530	Total	0.1530
Allocation across jobs	$P^m = 0.177$ n	$P^f = 0.115$ n	$\hat{P}^f = 0.131$ n

Controls: age, age2, tenure, education, job skill requirement, job position, PT status, sector, occupation.