Labor Protection, Leverage, and Wage

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First draft: June 2018

Current draft: January 2020

ABSTRACT

The literature documents a relation between financial leverage and employee pay, in which employees demand a high wage to compensate for the high unemployment risk caused by firms' high leverage. We investigate how an exogenous labor protection law affects the above relation. We show that the adoption of the law alleviates firms' pressure from raising wages, given the improvement of job security brought by the law; and financially constrained or distressed firms particularly benefited from the law. Our results suggest that all else equal, labor protection law helps firms control their labor costs via improving the job security of employees.

JEL classification: G32, J31, J63, K31

Keywords: Labor protection, Employee pay, Bargaining power, Capital structure

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1 Introduction

Unemployment is a significant distress for employees since losing job can be very costly for them such as long delays or substantial wage cuts in reemployment, reductions in consumption, psychological and social effects etc. (Katz and Meyer (1990); Gibbons and Katz (1991); Farber (2005); Gruber (1997); Kalil and Ziol-Guest (2008); DeLeire and Kalil (2010)). The literature documents that the unemployment risk for employees is especially higher when the company they work at has a higher level of leverage, which increases the bankruptcy risk and hence the firm can fire the employees to lower fixed costs.. For this unemployment risk, employees demand a compensating wage increase (as high as 2.3% of firm value, Graham et al. (2019)) by using the high level of leverage as a bargaining tool in wage negotiations (Berk, Stanton, and Zechner (2010); Agrawal and Matsa (2013); Chemmanur, Cheng, and Zhang (2013)). Following this literature, which document a positive relation between financial leverage and employee pay, we investigate how the adoption of state-level labor protection laws affects the impact of leverage on labor wages for US firms.

The role of labor protection in the leverage-employee pay relation is unclear. On the one hand, labor protection laws can ease the impact of leverage on wages. Incremental labor protection reduces unemployment risk since higher labor protection raises labor adjustment costs for firms (Autor, Iii, and Schwab (2006); Millan et al. (2013); Berglund and Furåker (2016)). With the labor protection policies, firms cannot discharge employees arbitrarily or they have to recover the benefit of employment to employees who are discharged without just cause. Firms, therefore, are less likely to fire their employees under strong labor protection (e.g., Serfling

(2016)). This reduction in unemployment risk, in turn, can be used by firms as a bargaining tool against their employees who demand wage increases to compensate unemployment risk caused by higher leverage. Following this argument, we hypothesize that the state adoption of labor protection laws eases the impact of leverage on employee wages. We name this channel as 'lower unemployment risk channel'.

On the other hand, labor protection laws can enhance the impact of leverage on wages. Labor protection policies increases the fixed cost of a firm since the firm is less likely to fire employees under strong employment protection (e.g., Serfling (2016)). Simintzi, Vig, and Volpin (2015) argue that stringent employment protection makes it more difficult for firms to adjust their labor forces, which, in turn, makes the wage payments resemble coupon payments on debt. The rising fixed cost leads to higher financial distress (Alimov (2015)), which, in turn, increases the risk of bankruptcy and, hence, the risk of unemployment, particularly for firms with high level of leverage. Employees, therefore, will demand higher wages to compensate for this risk. Following this argument, one can expect the impact of leverage on employee wages becomes stronger following the state adoption of labor protection laws. We name this second channel as 'higher unemployment risk channel'.

Overall, how the adoption of labor protection laws affects the relation between leverage and employee pay is an empirical issue, that depends on which channel (i.e., the 'lower unemployment risk channel' or 'higher unemployment risk channel') dominates in reality.

For the empirical investigation, we conduct a quasi-natural experiment from the adoption of labor protection laws by US state courts over the period of 1969-2003. Similar to Bai, Fairhurst, and Serfling (2019), our sample period starts five years before the first adoption

(New Hampshire passed the good faith exception in 1974) and ends five years after the last adoption (Louisiana passed the good faith exception in 1998). Among several different state-level labor protection laws adopted by US courts, we focus on the good faith exception since it is the most influential and strongest one in terms of increasing firing costs and hence reducing the unemployment risk (Kugler and Saint-Paul (2004); Serfling (2016)). Under the good faith exception, if a court decides that a firm fires an employee unfairly (i.e., out of bad faith, malice, or retaliation), the employee can recover contractual losses and punitive damages.

To test the casual effect of the adoption of good faith exceptions on the leverage-employee pay relation, we employ the difference-in-differences (DID) approach. The treated group contains firms headquartered in states adopted the good faith exception, whereas the control group consists firms headquartered in states with no good faith exception yet. Our baseline DID results from the fixed effect model shows that the relation between leverage and employee pay turns insignificant after the adoption of the labor protection law. Our finding suggests that firms take advantage in the improved job security (brought by the labor protection law) in their wage negotiations with employees to lower their labor costs (i.e., the 'lower unemployment risk channel').

We extend our analyses by conducting several additional tests to check the economic mechanisms underlying the effect of good-faith exception on the leverage-employee pay relation. First, we investigate whether our main findings are more pronounced for financially distressed firms and financially constrained firms. Particularly financially distressed firms and financially constrained firms need to cut their costs during an economic downturn since these firms have more difficulty to have access to external financing sources. They should also hold their liquid assets as a buffer against future cash flow volatility. Therefore, we expect especially this group of firms to use the adoption of employment protection laws as a bargaining tool in their wage negotiations against employees rather than accepting to pay higher wages (i.e., the 'lower unemployment risk channel'). That is, the negative impact of the adoption of good faith exception on the relation between leverage and employee pay should be more pronounced for financially distressed firms and financially constrained firms. Consistent with our expectation, we find that the baseline results are stronger for financially distressed and financially constrained firms.

Second, we examine whether firms use the good-faith exception as a bargain tool only against the employees who have high bargaining power. Employees can use the higher level of leverage to demand higher wages if they have bargaining power. In the absence of this power, employees cannot force the firm for higher wages even though the firm has high financial distress. In this case, firms will not need to use the good-faith exception as a bargaining tool because of the weak bargaining power of employees. Consistent with this expectation, by using the labor union coverage and also labor union membership at the industry level as the proxies for bargaining power of employees, we document that the good-faith exception reduces the positive impact of leverage on employee wages only for the employees with high bargaining power. This result provides further support for our main finding that firms use the adoption of labor protection as a bargaining tool to control employee costs.

Third, we exploit whether the impact of the good-faith exception on the leverage-employee pay relation differs across the employees with high-skilled labors (i.e., employees with high job security) and low-skilled labors (i.e., employees with low job security). The literature documents that firms have incentives to retain their highly skilled labors even in the event of the financial distress since hiring and training new labors for the same level of skills can be very costly (see, for instance, Brown and Petersen (2011); Ghaly, Dang, and Stathopoulos (2015); Guney, Karpuz, and Ozkan (2017)). This suggests that the job security and hence higher leverage should not be concern for the high-skilled employees (i.e., employees working at R&D firms or in industries reliance on skilled labors). Low-skilled employees, however, should have this concern since they do not have such a job security in the event of financial distress. Therefore, the adoption of good-faith exception should reduce the unemployment risk mainly for the latter group since the former group already has a low unemployment risk. We, therefore, expect the adoption of good-faith exception to affect the leverage-employee pay relation for the low-skilled employees. Our empirical results confirm this argument, which provides further support for the 'lower unemployment risk channel' we hypothesis.

Fourth, by following the literature (e.g., Agrawal and Matsa (2013)), we use employee layoff rates which vary across industries and document that leverage has a positive and significant effect on employee pay only for the employees in industries with high layoff rates (i.e., employees with higher unemployment risk). This finding confirms that particularly employees with higher chance of unemployment has a concern for leverage and hence they demand compensating wage increases against higher leverage. More importantly, we show that this positive and significant effect disappears after the adoption of good faith exception, which suggests that firms use the improved job security brought by the good faith exception particularly against the employees who demand higher wages. These findings also provide support for our argument that firms use the good faith exceptions as a bargaining tool to control labor expenses.

Next, we perform a battery of additional tests to ensure the robustness of our main results.

First, we perform Heckman two-step analysis for the potential sample selection bias. Second, we control for industry-, state-, and region-specific time trends in our regressions to make sure that they are not driving our results. Third, by following the literature (e.g., Bertrand and Mullainathan (2003); Serfling (2016); Simintzi, Vig, and Volpin (2015)), we do pre-treatment analysis to check whether there is a reverse causality issue or any difference in pre-treatment trends in leverage-employee pay relation between firms with adoption of labor protection laws (treated firms) and firms with no such adoption (control firms). Fourth, we confirm our baseline results by using the propensity-score-matching sample. We also report several additional robustness tests showing the consistency of our main results.

Our study makes several contributions to the literature. First, the growing literature documents that labor protection policies distort corporate decisions by reducing labor adjustment flexibility (e.g., financial policy (Agrawal and Matsa (2013); Simintzi, Vig, and Volpin (2015); Serfling (2016)), investment and firm performance (Bai, Fairhurst, and Serfling (2019)), and innovation (Acharya, Baghai, and Subramanian (2014))). By documenting evidence that the adoption of good faith exception gives power to firms to control labor costs, we provide a new insight into understanding the role of labor protection policies in corporate decisions.

Second, Berk, Stanton, and Zechner (2010) and Chemmanur, Cheng, and Zhang (2013) argue that employees use leverage for higher wages against firms. On the contrary, another literature (Bronars and Deere (1991), Perotti and Spier (1993), Matsa (2010), and Benmelech, Bergman, and Enriquez (2012)) shows that firms use leverage against employees. We contribute to this literature by showing that firms use labor protection as a bargaining tool against employees to control labor costs.

Third, our paper is also related to the literature studying human capital and corporate financial policy. Agrawal and Matsa (2013) argue that firms decrease leverage to reduce unemployment risk of employees. Bae, Kang, and Wang (2011) argue that employee treatment is negatively related to leverage. Simintzi, Vig, and Volpin (2015) and Serfling (2016) find that labor protection crowds out leverage through operating leverage. Our paper shows that besides directly impacting leverage, labor protection has a significant effect on labor costs against leverage.

The reminder of the paper proceeds as follows. Section 2 discusses the labor protection laws. Section 3 introduces the data and empirical model. Section 4 presents our baseline results. Section 5 is for cross sectional heterogeneities to evaluate the economic mechanism underlying the baseline results. Section 6 is for a battery of additional tests to ensure the robustness of the results. The final section concludes.

2 Institutional background: Labor protection laws

In this section, we discuss six exogenous and staggered state-level labor protection laws adopted in the U.S.: (1) good faith exceptions, (2) implied contract exceptions, (3) public policy exceptions, (4) right to work laws, (5) increases in unemployment insurance benefits, and (6) directors' duties laws. The legislations and laws in US give rights employees to sue employers for wrongful termination, which provides protection to employees for unfair dismissals. As discussed in the literature, a state's first court decision about employment protection provides information on the adoption years of the good faith exception, implied contract exception, and public policy exception. We collect the adoption years of these exceptions from the literature (see, Serfling (2016); and Bai, Fairhurst, and Serfling (2019)). The information on the right to work laws, unemployment insurance benefits, and directors' duties laws are from Unionstats.com, Devos and Rahman (2018), and Cremers, Guernsey, and Sepe (2019), respectively.

Among these six labor protection laws, the good faith exception is the most far-reaching and also influential one on corporate decisions by increasing the firing costs and hence reducing the unemployment risk (Kugler and Saint-Paul (2004); Serfling (2016)). As such, we mainly focus on the effect of good faith exceptions on the relationship between employee pay and leverage.

The good faith exception requires employers to treat employees in a fair manner and protect them from termination of employment without just cause. Under this law, employers cannot discharge employees arbitrarily, and they also cannot discharge employees before pensions vest, labor receive bonuses or commissions. New Hampshire first passed the good faith exception in 1974. The implied contract exception protects employees from termination of employment if the employer has implicitly promised employees not to discharge them without good cause. The promises can be oral. California first passed the implied contract exception in 1972. The public policy exception protects employees from termination of employment for refusing to violate a public policy or commit an illegal act. Employers cannot discharge employees because of performing a public service even if not in the employer's interest. California first passed the public policy exception in 1959. The Right to work law allows employees not to join or financially support a union compulsorily. Florida first passed the right to work law in 1943. Unemployment insurance benefits are state-level unemployment insurance benefits that can be used to compensate unemployment claimants. California, Colorado, Georgia, Maryland,

and Michigan first increased unemployment insurance benefits in 1982. Directors' duties laws enable directors to consider the welfare interests of all firm stakeholders, including employees, suppliers, customers, creditors and local communities in making corporate decisions. Ohio first passed the directors' duties law in 1984.

3 Data and Empirical Model

3.1 Sample selection

Our sample starts with all the public US firms available on Compustat. We exclude the firms that are in regulated industries, i.e., financial and utility firms (SIC 6000-6999 and SIC 4900-4999). Following Chemmanur, Cheng, and Zhang (2013), we require each firm to have the positive book value of equity and non-missing observations for the average employee pay, leverage, market equity, average sales per employee, market to book ratio, tangibility, and SIC code.

Similar to Bai, Fairhurst, and Serfling (2019), our sample period starts from 1969, which is five years before the first adoption of good faith exception by New Hampshire in 1974, and ends in 2003, which is five years after the last adoption of good faith exceptions by Louisianan in 1998. We use the Compustat state abbreviation (the variable "state") to place each firm's headquarter in one of the US states.[1] Because Compustat reports the current location of a firm's

[1]This state-level variable cannot capture all the variation in labor protection because a few of the firms could have labors working outside the state where they are headquartered. Compustat provides only the state of headquarters and we have no access to the detailed plant-level data. Serfling (2016)) documents Dertouzos, Holland, and Ebener (1988) find that executive or managerial positions account for 53% of plaintiffs in wrongful termination cases. And these positions are more likely to be in headquarters. Thus, the state of headquarters enables us to capture the most variation in labor protection. In addition, we exclude retail, wholesale, and transport industries

headquarter rather than the historical location, this potential measurement error may drive the results. However, Pirinsky and Wang (2006) find that only 118 firms relocated out of a sample of more than 5,000 firms. Thus, we expect the effect of relocated will be insignificant.[2] We then match the adoption of the state-level laws to the state where each firm is headquartered.

We collect the accounting and credit rating data from Compustat Industrial Annual database. The state-level GDP and populations data are from the Bureau of Economic Analysis and the US Census Bureau, respectively. The consumer price index and labor unionization data are from the FRED and Unionstats.com.[3]

We winsorize all continuous variables, except macroeconomic variables, at their 1st and 99th percentiles to mitigate the effect of outliers. All dollar amounts are deflated to 1992 dollars using the consumer price index. Our industry classification is based on the Fama and French 48-industries. Our final sample has 12,206 firm-year observations over the period of 1969-2003. Since only about 10% of the firms on Compustat report their total staff expenses, we employ Heckman (1979) two-step analysis to address the potential sample selection bias (see Section 6.1).

Table 1 reports summary statistics for our final sample of 12,206 firm-year observations. The mean value of average employee pay is $35,301, which is similar to $32,760 in Chemmanur, Cheng, and Zhang (2013). We use the natural log of average employee pay, the natural log of market equity, and the natural log of state GDP per capita to reduce the potential effect of

for robustness tests in Section 6.5 because employees in these industries are likely to be geographically dispersed (Agrawal and Matsa (2013)).

[2] Also, if a firm relocated to a different state, it will be subject to different labor protection and the actual effect of labor protection should be larger than our results. Thus, our results will be underestimated by the potential measurement error.

[3] See Hirsch and Macpherson (2003) for details on construction of this database.

outliers and skewness. The mean value of the good faith dummy is 0.106, compared to 0.156 in Acharya, Baghai, and Subramanian (2014) and 0.172 in Serfling (2016). This mean value suggests that 10.6% of firm-years in our sample are under the good faith exception. The mean leverage value is 0.402, compared to 0.402 to 0.546 in Baker and Wurgler (2002). Overall, the values in our summary statistics are consistent with the literature.

[Table 1 about here]

3.2 Empirical model

The adoption of state-level labor protection laws in the US provides us an opportunity to examine how the labor protection affects the leverage-employee pay relation in a difference-in-differences research design. One advantage of this research design is that all the treated firms belong to both treated and control groups at different points in time, which mitigates the concerns that differences between treated and control groups may drive our results. By following Chemmanur, Cheng, and Zhang (2013), we use the difference-in-differences (DID) research design below to study how the state-level labor protection laws affect the leverage-employee pay relation:

$$\begin{aligned} AvrEmpPay_{i,s,t} = \alpha + \beta_1 GoodFaith_{s,t} \times Lev_{i,s,t} + \beta_2 Lev_{i,s,t} + \beta_3 GoodFaith_{s,t} \\ + \delta X_{i,s,t} + \theta Z_{s,t} + \eta_j + \gamma_s + \upsilon_t + \varepsilon_{i,s,t}, \end{aligned} \tag{1}$$

where subscripts i, j, s, and t are for denoting a firm, industry, state, and year, respectively. The dependent variable $AvrEmpPay_{i,s,t}$ is the natural log of average employee pay for firm

i in state s and year t. We follow Chemmanur, Cheng, and Zhang (2013) to measure the average employee pay as the total staff expenses divided by the number of employees for a firm at time t. $GoodFaith_{s,t}$ is a dummy variable that equals one if the state s where a firm is headquartered has adopted the good faith exception in year t, and zero otherwise.[4] $Lev_{i,s,t}$ is the market leverage measured as the ratio of total assets minus the book value of equity to total assets minus the book value of equity plus the market value of equity (see, for instance, Baker and Wurgler (2002). We use the market leverage in our main regression since it captures the influence of stock returns on debt ratio, which is important for debt ratio dynamics (Welch (2004)). Our results are robust when we use three alternative measures of leverage, which are financial debt to market value of assets, total debt to market value of assets, and total debt to market value of assets and preferred stock minus deferred taxes (see section 6.5). To investigate the impact of labor protection laws on the leverage-employee pay relation, we interact the good faith exception with the leverage, i..e, $GoodFaith_{s,t} \times Lev_{i,s,t}$. We expect the coefficient β_1 to be negative and significant if firms use the adoption of good faith exception as a bargaining tool to control the labor costs against the employees who demand compensating wage increases because of higher leverage (i.e., the 'lower unemployment risk channel').

By following Chemmanur, Cheng, and Zhang (2013), we also control for firm size ($Size_{i,s,t}$), average sales per employee ($AvgSale_{i,s,t}$), market to book ratio ($MtoB_{i,s,t}$), and tangibility ($Tang_{i,s,t}$) in the vector $X_{i,s,t}$. Firm size is the natural log of the market value of equity. Larger firms tend to pay higher salaries than smaller firms. Average sales per employee is the total sales divided by the number of employees for firm i in state s and in year t, which is a measure

[4] Exceptionally, New Hampshire and Oklahoma reversed their adoptions of the good faith exception in 1980 and 1989, respectively. We set the corresponding dummy to 0 after they reverse their adoptions.

of productivity. Firms with higher productivity tend to pay higher wages. Market-to-book ratio is the proxy for growth opportunities and measured as the ratio of the market value of equity to the book value of equity. Tangibility is the ratio of gross property, plant, and equipment to total assets. Firms with higher tangibility are more likely to have higher productivity and hence higher wages (Cronqvist et al. (2009); Berk, Stanton, and Zechner (2010)). In addition, we include state-level GDP per capita and GDP growth in the vector $Z_{s,t}$ to control for the differences in macroeconomic environment across states (see, for instance, Serfling (2016)). GDP per capita equals the annual GDP of a state divided by the total state population. GDP growth is the annual state-level GDP growth rate. As in Chemmanur, Cheng, and Zhang (2013), we also include year dummies (υ_t) to control for time-specific variation in employee pay, and also industry dummies (η_j) since there is a substantial heterogeneity in pay practices across industries. We also control for state-specific fixed effects (γ_s) to ensure that our results reflect within-state variation over time rather than simple cross-sectional differences. We cluster standard errors at the state level since the variable $GoodFaith_{s,t}$ varies at the state-level. Table A1 in the Appendix provides detailed definitions and sources of the variables.

4 Baseline results

Table 2 shows our baseline difference-in-differences estimation results from the equation (1). Column 1 presents the estimation results from the common firm-level determinants of employee pay (see, for instance, Chemmanur, Cheng, and Zhang (2013)), whereas our main focus is on the interaction of good faith exception with the leverage in Columns 2 and 3. In Column

1, the positive and statistically significant coefficient on leverage (0.194) shows that higher leverage increases employee pay. This coefficient is consistent with Chemmanur, Cheng, and Zhang (2013)'s (0.23) that leverage has a positive and significant effect on employee pay: firms with higher probability of bankruptcy due to higher leverage have to increase employee pay to compensate the unemployment risk for employees. The coefficients on other variables are also in line with the literature (see, for instance, Cronqvist et al. (2009); Berk, Stanton, and Zechner (2010)). For instance, the positive and significant coefficients on Size suggests that employee pay increases with firm size ($Size_{i,s,t}$). The coefficient on the average sales per employee ($AvgSale_{i,s,t}$) shows that employee pay increases with profitability. The market-to-book ratio ($MtoB_{i,s,t}$) implies that growth opportunities increases the labor costs. The tangibility ($Tang_{i,s,t}$) also has positive coefficients, which suggests that higher tangibility is more likely to create better productivity and hence increase wages.

In Column 2, we add the good faith exception and its interaction with leverage, $GoodFaith_{s,t} \times Lev_{i,s,t}$, to investigate the impact of the adoption of good faith exceptions on the leverage-employee pay relation. In Column 3 we also control for the state-level GDP variables. In both columns, the coefficients on our main variable of interest $GoodFaith_{s,t} \times Lev_{i,s,t}$ are negative and statistically significant (-0.241) at the 1% level. Our results suggest that the positive and significant effect of leverage on employee pay disappears after the adoption of good faith exception.

In Column (4), we conduct the test at the state level of aggregation to exploit only variation across time within a state. Last, Column (5) aggregates the test at the state-industry level to exploit variation across time within different industries of a state. Together, these findings are consistent with our discussion of the ‘lower unemployment risk channel’ that firms use the improved job security brought by the adoption of good faith exceptions as a bargaining tool to control the labor costs against the employees who uses higher level of leverage for wage increases.

[Table 2 about here]

Even though our DID research design addresses potential endogeneity concerns, we do several additional robustness tests in Section 6 to address these concerns further. In the next section, we perform several cross-sectional tests.

5 Cross-sectional heterogeneity

In this section, we examine the cross-sectional variation in the negative effect of labor protection on the leverage-employee pay relation to evaluate the economic mechanism. To investigate whether the reduced unemployment risk as a bargaining tool for the firms (i.e, ‘the lower unemployment risk channel’ as we hypothesize) is the dominant economic channel underlying the effect of good-faith exception on the leverage-employee pay relation, we perform several cross-sectional tests based on financial constraints, financial distress, bargaining power of employees, level of labor skills, and employee layoff rates of industries.

5.1 Financial constraints and financial distress

In this subsection, we use financial constraints and financial distress to assess the dominant economic mechanism in play, and expect the negative impact of the adoption of good faith exception on the leverage-employee pay relation to be more pronounced for this group of firms. Firms with financial distress or financial constrains are under a higher pressure than the non-financially distressed or financially unconstrained firms to cut their labor costs during an economic downturn since the former group of firms have relatively more difficulty to access external financing sources (Alimov (2015)). However, it is less likely to fire the employees to cut the costs due to higher labor adjustment costs under the employment protecting laws (Autor, Iii, and Schwab (2006); Millan et al. (2013); Serfling (2016)). Therefore, financially distressed and financially constrained firms will be under relatively larger burden of higher labor expenses during an economic downturn if they increase labor costs to meet the employees' demands for compensating wage increases. To avoid from this burden, particularly this group of firms should use good faith exception as a bargaining tool against employees to control labor costs. Also, since employees' demand for wage increases to compensate the unemployment risk is particularly from the financially distressed firms, the adoption of good-faith exception should be used especially by these firms to control labor costs if the 'lower unemployment risk channel' is the dominant mechanism in play. That is, the positive effect of leverage on employee pay should be less or disappear particularly for financially distressed firms after the adoption of good-faith exception.

To test our hypothesis, in Panel A of Table 3, as proxies of financial constraints, We follow Denis and Sibilkov (2010) and Bates, Chang, and Chi (2018) and use dividend payments and credit rating as proxies of financial constraints. We also follow Denis and Sibilkov (2010) and use firm size to proxy for financial constraints. We define small firms as firms whose market equity is below the annual median. Non-dividend payers, unrated firms, or small firms are considered as financially constrained, whereas dividend payers, rated firms, or large firms are considered as financially unconstrained. In Panel A of Table 3, we use these measures and estimate equation (1) by splitting our sample into financially constrained (Columns 2, 4, and 6) and financially unconstrained (Columns 1, 3, and 5) subsamples. The table shows that the interaction of good faith excepting with leverage, $GoodFaith_{s,t} \times Lev_{i,s,t}$, is negative and statistically significant for only financially constrained firms. Consistent with our discussion, these findings suggest that particularly financially constrained firms use the good faith excepting as a bargaining tool against employees' demand for compensating wage increases to control labor expenses.

[Table 3 about here]

Next, in Panel B of Table 3, we estimate equation (1) by splitting the sample into financially distressed and non-financially distressed groups. We use the modified Altman (1968)'s Z score from Leary and Roberts (2014) as the proxy of financial distress. It is measured as following:

$$
\begin{aligned}
Z = 3.3 \times \frac{\text{earnings before interest and taxes}}{\text{total assets}} + \frac{\text{sales}}{\text{total assets}} + 1.4 \times \frac{\text{retained earnings}}{\text{total assets}} \\
+ 1.2 \times \frac{\text{working capital}}{\text{total assets}}.
\end{aligned}
\tag{2}
$$

We then split the sample based on annual median values of the Altman's Z score. A firm-year observation with a score below (above) the median value is classified into financially distressed group in Column 2 (non-financially distressed group in Columns 1). The results show that the coefficients on the leverage are positive and significant only for financially distressed firms. More importantly, the interaction $GoodFaith_{s,t} \times Lev_{i,s,t}$ are negative and statistically significant for only the financially distressed firms in Columns 2. These findings suggest that only the distressed firms use the improved job security brought by the good faith exception as a bargaining tool to avoid from higher labor expenses.

Overall, as we expected, our results in Table 3 suggest that particularly financially constrained and financially distressed firms use the good faith excepting as a bargaining tool to control labor costs since these groups of firms will be under relatively larger burden of fixed costs if they accept to raise labor wages. These findings provide support for our hypothesis that reduced unemployment risk under good faith exception as a bargaining tool for the firms (i.e, 'the lower unemployment risk channel') is the dominant economic mechanism in play.

5.2 Bargaining power of employees

In this section, we investigate whether firms use the good-faith exception as a bargaining tool against only the employees who have higher bargaining power. Employees without bargaining power cannot create a substantial pressure on the firm by using the higher leverage as a bargaining tool. Therefore, we expect firms to use the adoption of good-faith exception against only the employees who have higher power in wage negotiations.

In Table 4, we follow Klasa, Maxwell, and Ortiz-Molina (2009) and Devos and Rahman (2018) and use labor unionization rates to proxy for labor bargaining power. We employ both industry-level percentages of union coverage (in Columns 1 and 2) and union membership (in Columns 3 and 4) from Unionstats.com.[5] Since this database uses the industry classification of Census Industry Classification (CIC), we match CIC codes to SIC codes in our sample, as

[5]We also use state-level labor union data and find the consistent results. Table A2 reports the results

in Klasa, Maxwell, and Ortiz-Molina (2009), and then assign industry unionization rates to corresponding firms. Because the union data starts from 1983, the number of observations in our sample reduces to 6,136. We classify a firm into the low labor bargaining power group, 'Low bargaining power', (high labor bargaining power group, 'High bargaining power') if it has a unionization rate below (above) the annual median value.

Table 4 shows the results from the equation (1) for the 'Low bargaining power' and 'High bargaining power' subsamples. Leverage has a positive and significant effect on employee pay for only the high labor bargaining power groups. Consistent with our discussion, these results suggest that only employees with high bargaining power use higher leverage against firms to increase wages. More importantly, the coefficients on the interaction of good-faith exception with leverage are negative and statistically significant only for the high labor bargaining power groups. These suggest that firms use good-faith exception only against employees who have bargaining power since only this group of employees can create pressure on the firm for compensating wage increases. These findings provide additional support for the hypothesis that 'the lower unemployment risk channel' is the dominant economic mechanism underlying our main results.

[Table 4 about here]

5.3 The level of unemployment risk

In this section, we first investigate how the impact of the good-faith exception on the leverage-employee pay relation differs across the high-skilled labors and low-skilled labors. The literature documents that firms have incentives to retain their highly skilled labors since hiring and training new labors for the same level of skills can be very costly. For instance, Brown and Petersen (2011, 2015) and Guney, Karpuz, and Ozkan (2017) argue that R&D firms prefer to keep their employees even in the event of financial distress since they are highly skilled scientist and employees with high firm-specific human capital and firing them can be very costly. If the firm fires them, it would be very costly to hire employees that have similar level of human capital and this, in turn, can cause major productivity losses. Ghaly, Dang, and Stathopoulos (2015, 2017) also argue that firms have greater incentives to keep their high-skilled labors. The cost for searching, hiring, and training new employees with high labor skills is much higher. Also, replacing skilled workers takes a long time Oi (1962), which causes disruption to productivity.

This suggests that the unemployment risk for the employees with high labor skills (i.e., employees working at R&D firms or in industries reliance on skilled labors) is much lower than that for the employees with low labor skills. Therefore, skilled labors should not have a concern for leverage and use it to require compensating wage increases because firms are less likely to fire them even in the event of financially distressed. Higher leverage should increase the unemployment risk particularly for the low-skilled labors and hence the adoption of good-faith exception should improve the job security mainly for these employees, given that skilled labors already have a low unemployment risk. We, therefore, expect the adoption of good-faith exception to affect the leverage-employee pay relation particularly for the low-skilled employees.

In Table 5, we classify firm-years with positive R&D investments into high-skilled labor group in Column 2, whereas with no R&D investments into low-skilled labor group into Column 1. We also use Ghaly, Dang, and Stathopoulos (2017)'s labor skill index to split the sample into high-skilled labor and low-skilled labor groups in Column 4 and 3, respectively. Ghaly, Dang, and Stathopoulos (2017) create the index to identify industries with the least and most reliance on skilled labor by using the number of employees, their occupations, total number for occupations in an industry, and also US Department of Labor's O*NET program classification of occupations considering the skill levels. The values of index range from 1 to 5, and a higher score indicates that majority of workers in the industry have extensive skills to perform their jobs. By following this paper, we identify the industries and split our sample into high-skilled labor group in Column 4 and low-skilled labor group in Column 3.[6]

Table 5 shows that the coefficient on leverage are positive and significant for non-R&D firms and low-skilled labors in Columns 1 and 3, respectively, whereas insignificant for R&D firms and high-skilled labors. Consistent with our discussion, this suggests that higher leverage is a concern only for labors with low labor skills since their unemployment risk is relatively higher. Therefore, they demand higher wages to compensate the risk of unemployment brought by higher leverage. More importantly, the coefficients on the interaction of good faith adoption with leverage, $GoodFaith_{s,t} \times Lev_{i,s,t}$, are negative and significant only for employees with high unemployment risk. This suggests that to control the labor expenses, firms use the good faith adoption only against the employees who demand wage increases (i.e., employees with higher unemployment risk) due to their concern for higher leverage. Firms do not use the good faith

[6] Ghaly, Dang, and Stathopoulos (2017) classify the industries with least reliance on skilled labor as gasoline stations; restaurants and other eating places; services to buildings; amusement parks and arcades; grocery stores; department stores; footwear manufacturing. The industries with most reliance on skilled labor are legal services; architectural, engineering, and related services; colleges, universities, and professional schools; offices of health practitioners; scientific R&D services; electronic and precision equipment; software publishers; accounting and tax preparation services; management and technical consulting services.

adoption against the employees who have no concern for leverage (i.e., employees with lower unemployment risk).

[Table 5 about here]

Next, in Table 6, we investigate whether the effect of the good-faith exception on the leverage-employee pay relation differs across the industries with high versus low layoff rates. The chance of unemployment in the industries with high layoff rates is higher than that with low layoff rates. Therefore, the former group of employees should have a higher concern for leverage and hence demand compensating wage increases. We expect firms to use the good faith adoption particularly against these employees who demand higher wages in industries with high layoff rates.

To investigate this, following Agrawal and Matsa (2013), we use layoff separation rates at three-digit NAICS industries and classify the industries into low layoff rates in Column 1 and high layoff rates in Column 2 based on the annual median value of the layoff separation rate. Table 6 shows that the coefficient on leverage is positive and significant for only the 'High layoff' group, which suggests that only the employees with higher unemployment risk demand higher wages when leverage increases. More importantly, the coefficient on the interaction $GoodFaith_{s,t} \times Lev_{i,s,t}$ is negative and significant only for the 'High layoff' group, which suggests that to control the labor expenses, firms use the good faith exception against the employees who demand wage increases due to higher unemployment risk brought by leverage.

Overall, results from Table 5 and 6 provide further support for our baseline results that the reduced unemployment risk under good faith exception is used by firms against employees who demand higher wages to compensate the unemployment risk under higher leverage. This confirms that the "lower unemployment risk channel' is the dominant economic mechanism underlying our results.

[Table 6 about here]

In the next section, we perform a battery of additional robustness tests for our main results.

6 Robustness tests

6.1 Tests for sample selection bias

We collect our data from Compustat, but not all the firms in Compustat report their labor expenses and this may create a sample-selection bias if firms selectively choose to report or not to report their total staff expenses. In this section, we address this potential sample-selection bias with Heckman (1979) two-step analysis.

In the first stage of this analysis, we use a probit model of whether or not a firm reports its employee expenses. The model has a dummy dependent variable that takes one if a firm reports its labor expenses, and zero otherwise. The independent variables are all the control variables in equation (1) plus dummies of the firm's listing stock exchange. Chemmanur, Cheng, and Zhang (2013) find that firms in different exchanges have different reporting behavior. Also, the listing exchange has no effect on average employee pay. Panel A of Table 7 presents the results from the first stage analysis. We find that all the independent variables except the market to book ratio and GDP growth are significantly associated with a firm's decision of reporting its total staff expenses. The exchange dummies are jointly significant, which indicates that these factors have effects on whether or not firms report their total staff expenses. Specifically, larger firms with lower leverage, higher tangibility, and higher average sales per employee in states with lower GDP per capita tend to report their total staff expenses.

In the second stage, we estimate the effect of labor protection on the leverage-employee pay relationship. We add the inverse Mills ratio derived from the first stage probit model into the equation (1) to examine whether the potential sample selection bias drives our main results. We expect the coefficient on the interaction term, $GoodFaith_{s,t} \times Lev_{i,s,t}$, to be significantly negative after controlling for the inverse Mills ratio. Panel B of Table 7 presents the result of the second stage analysis. The coefficient on the inverse Mills ratio is statistically insignificant. This finding suggests that the unobserved factors related to firms' decisions of reporting their total staff expenses are not associated with average employee pay. Moreover, the positive and significant effect of leverage on employee pay does not change. This indicates that the potential sample selection bias does not affect the positive effect of leverage on employee pay. More importantly, the negative effect of good faith exceptions on the relationship between leverage and employee pay is still negative and significant at 1% level after controlling for the inverse Mills ratio. Overall, the results from the Heckman two-step analysis confirm our main finding that labor protection reduces the positive impact of leverage on employee pay and this result is not driven by the potential sample selection bias.

[Table 7 about here]

6.2 Specific time trends

In this section, in addition to the control variables in Equation (1), we follow the literature and control for the specific time trends to ensure that the effect of the good faith exception is not caused by shocks that are common to industries, states, or regions.[7] For instance, Simintzi, Vig, and Volpin (2015) argue that the Region $\times$ Year fixed effect can absorb any variation at the regional level that might drive the results.

For this analyses, in Table 8, we include Industry $\times$ Year (in Column 1), State $\times$ Year (in Column 2), and Region $\times$ Year (in Column 3) fixed effects one by one to our main specification. Across the three columns, the coefficients on the interaction term the good faith adoption times leverage $GoodFaith_{s,t} \times Lev_{i,s,t}$ are still negative and significant at the 1% or 5% level. These results confirm that the negative effect of the labor protection laws on the positive relation between the leverage and labor costs is not be driven by the industry-specific, state-specific, or region-specific time trends.

[Table 8 about here]

6.3 Pre-treatment trends

The key assumption in our difference-in-differences research design is that firms that are headquartered in states with and without the adoption of good faith exceptions (i.e., treated and control firms) exhibit similar pre-treatment trends in the leverage-employee pay relationship. To alleviate the potential endogeneity concerns about this parallel-trend assumption and also

[7] We follow the Bureau of Economic Analysis (BEA) to categorize bordering states into eight-BEA regions: New England region, Mideast region, Great Lakes region, Plains region, Southeast region, Southwest region, Rocky Mountain region, and Far West region.

reverse causality, we do pre-treatment trend analysis by following the literature (e.g., Bertrand and Mullainathan (2003); Simintzi, Vig, and Volpin (2015); Serfling (2016)).

For this analysis, following Serfling (2016) and Simintzi, Vig, and Volpin (2015), we replace the good faith exception dummy variable ($GoodFaith_{s,t}$) in Equation (1) with the following five dummy variables: $GoodFaith_{s,t}^{-2}$ equals one if the firm is headquartered in a state that will adopt the good faith exception 2-years from now; $GoodFaith_{s,t}^{-1}$ equals one if the firm is headquartered in a state that will adopt the good faith exception next year; $GoodFaith_{s,t}^{0}$ is the contemporaneous value of $GoodFaith_{s,t}$; $GoodFaith_{s,t}^{1}$ equals one if the firm is headquartered in a state that adopted the exception one year ago; and $GoodFaith_{s,t}^{2+}$ equals one if the firm is headquartered in a state that adopted the exception two or more years ago.[8]

Table 9 presents the results. A negative and significant coefficient on the interaction of $GoodFaith_{s,t}^{-2}$ or $GoodFaith_{s,t}^{-1}$ with leverage (i.e., ($GoodFaith_{s,t}^{-2} \times Lev_{i,s,t}$ or ($GoodFaith_{s,t}^{-1} \times Lev_{i,s,t}$) would be problematic since this can indicate reverse causality or that the positive effect of the leverage on employee pay already deteriorates even before the adoption of the good faith exception. Our results show that the coefficients on ($GoodFaith_{s,t}^{-2} \times Lev_{i,s,t}$ and ($GoodFaith_{s,t}^{-1} \times Lev_{i,s,t}$ are statistically insignificant. The coefficient on the interaction $GoodFaith_{s,t}^{2+} \times Lev_{i,s,t}$, however, is negative and statistically significant at the 1% level. The coefficients on ($GoodFaith_{s,t}^{+1} \times Lev_{i,s,t}$ are statistically insignificant, but still negative. These results show that the positive effect of leverage on employee pay weakens only after the adoption of good faith exception. Overall, our findings suggest that the negative impact of good faith exception on

[8] Because New Hampshire reversed the good faith adoption in 1980 and Oklahoma reversed the good faith adoption in 1989, we drop observations in New Hampshire after 1980 and in Oklahoma after 1989 by following Serfling (2016). Our sample reduces from 12,206 to 12,154 firm-year observations.

leverage-employee pay relation is not driven by pre-treatment trends or reverse causality.

[Table 9 about here]

6.4 Propensity score matching

In this section, we investigate the robustness of the negative impact of the labor protection laws on the leverage-employee pay relation by controlling the differences in the firm-level and state-level variables in the treated and control groups. Even though our baseline DID estimation addresses the endogeneity concern that some unobserved firm characteristics and macroeconomic environments between treated and control groups may drive our baseline results, using a matched sample alleviates this concern further.

We use the propensity score matching method to match the treated firms with control firms by a one-to-one nearest-neighbor matching without replacement. We match treated and control firms in year $t-1$, where t is the adoption year of good faith exceptions. Using a logistic regression, we estimate propensity scores by regressing the good faith exception dummy variable, $GoodFaith_{s,t}$, on all the firm-level and state-level control variables in equation (1) to estimate the likelihood of being a treated firm. We then match each treated firm at year $t-1$ to one control firm without replacement such that the propensity score is within a caliper of 0.2 standard deviation.[9] The matched firms should be from the same year and Fama-French 48 industry. Panel A of Table 10 shows that the sample means of the firm-level and state-level control variables are not significantly different across the treated and control groups after the

[9] Austin (2011) argues that the logit of propensity score with a caliper of 0.2 standard deviations minimizes errors and bias.

matching procedure. This indicates that the matching procedure is successful.

Next, we examine the effect of the good faith adoption on the relationship between leverage and employee pay by using our main specification that includes the full set of control variables in the matched sample. Panel B shows that the adoption of good faith exceptions significantly reduces the positive effect of leverage on employee pay in the matched sample. This provides further support that our main findings are robust and not driven from the differences between treated and control groups.

[Table 10 about here]

6.5 Additional robustness tests

In this section, we conduct several additional tests to ensure the robustness of the effect of labor protection on the relationship between leverage and employee pay further. First, in Table 11, we show that our results are robust to three alternative definitions of leverage. In Column 1, Column 2, and Column 3, we follow Welch (2011), Leary and Roberts (2010), and Leary and Roberts (2014), respectively, to define $Lev1_{i,s,t}$, $Lev2_{i,s,t}$, and $Lev3_{i,s,t}$ as below:

$$Lev1_{i,s,t} = \frac{\text{long term debt} + \text{debt due in one year}}{\text{long term debt} + \text{debt due in one year} + \text{market value of assets}} \tag{3}$$

$$Lev2_{i,s,t} = \frac{\text{long term debt} + \text{short term debt}}{\text{long term debt} + \text{short term debt} + \text{market value of assets}} \tag{4}$$

$$Lev3_{i,s,t} = \frac{\text{long term debt} + \text{short term debt}}{\text{total debt} + \text{market value of assets} + \text{preferred stock} - \text{deferred taxes}} \tag{5}$$

The detailed definitions of the leverages and the Compustat codes of the variables are in

Table A1 of Appendix. Table 11 shows that the coefficients on the interaction of the good-faith exception with the different definitions of leverages across three columns are still negative and statistically significant. This suggest that the negative effect of the adoption of the good-faith exception on the leverage-employee pay relation is robust across different measures of leverage.

[Table 11 about here]

Second, to mitigate the potential concern for the compounding effect that may be brought by employees working outside the state where their employer is headquartered, we exclude industries that are more likely to be geographically dispersed. Agrawal and Matsa (2013) find that employees in retail, wholesale, and transport industries are likely to be geographically dispersed. After dropping observations in these industries, our sample reduces to 9,171 firm-year observations. Table A3 in the Appendix shows that our results from this analysis are robust.

Next, we investigate whether other five labor protection policies have any effect on the leverage-employee pay relationship in Table 12. In Column 1, we denote the implied contract dummy ($ImpliedContract_{i,s,t}$) to capture the state-level adoption of implied contract exceptions. The dummy equals one if the state s where a firm is headquartered has adopted the implied contract exception in year t, and zero otherwise.[10] Similarly, we control for the public policy dummy ($PublicPolicy_{i,s,t}$) in Column 2 to capture the state-level adoption of public policy exceptions; the right to work dummy ($RightToWork_{i,s,t}$) in Column 3 to capture the state-level adoption of right to work laws; the unemployment insurance dummy

[10]Exceptionally, Arizona and Missouri reversed their adoptions of the implied contract exception in 1984 and 1988, respectively. We set the dummy to zero after they reverse their adoptions.

($UnemploymentInsurance_{i,s,t}$) in Column 4 to capture the large state-level increase in unemployment insurance benefits; and the directors' duties dummy ($DirectorDuties_{i,s,t}$) in Column 5 to capture the state-level adoption of directors' duties laws. The dummy equals one if the state s where a firm is headquartered has adopted the public policy exception in Column 2, right to work laws in Column 3, or directors' duties laws in Column 5 in year t, and zero otherwise. In Column 4, the dummy equals one if the state s has increased at least 10% of the unemployment insurance benefits at the first time in year t, and zero otherwise.

We interact these dummies with leverage to investigate whether any of these other five labor protection policies have any significant effect on the leverage-employee pay relation. Overall, our findings show that only the adoption of good faith exceptions reduces the positive effect of leverage on employee pay, while other labor protection policies have no effect on the leverage-employee pay relationship.

[Table 12 about here]

7 Conclusion

The literature documents a positive relation between leverage and employee pay since employees demand an increase in wages to compensate higher unemployment risk caused by higher leverage. In this paper, we investigate how the adoption of labor protection laws as an exogenous decrease in unemployment risk is used by the firms to control labor costs.

We use the adoption of good faith exception by US state courts to identify the casual effect of the labor protection laws on the leverage-employee pay relation. We find that the exception shelters firms from the higher wage costs by improving the job security for employees. Our findings from several robustness tests confirm the causal interpretation of this result. Further, our series of cross-sectional tests confirm that the reduced unemployment risk following the adoption of the good faith exception is the dominant mechanism underlying our finding. That is, the negative effect of the good faith exception on the leverage-employee pay relation is stronger for financially constrained and financially distressed firms. Also, we show that firms use the good faith exception as a bargaining tool particularly against to the employees who have bargaining power to increase their wages and those who demand compensating wage increases because of their concern for unemployment due to higher leverage.

Overall, our findings provide evidence that labor-friendly court decisions alleviate firms' pressure from raising wages. Our study sheds new light on the positive role of labor protection laws in terms of giving power to firms to control their labor costs.

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Table 1: Summary statistics

This table presents summary statistics for the main variables in the analysis of employee pay model. The sample consists of Compustat firms from 1969 to 2003. It includes 12,206 firm-year observations. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th to mitigate the effect of outliers. All dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions.

Statistic	N	Mean	St. Dev.	Pctl(25)	Median	Pctl(75)
Dependent variable						
Average employee pay (thousands)	12,206	35.301	17.415	24.485	34.685	45.572
Main explanatory variables						
Good faith exception	12,206	0.106	0.307	0	0	0
Implied contract exception	12,206	0.475	0.499	0	0	1
Public policy exception	12,206	0.509	0.500	0	1	1
Right to work law	12,206	0.346	0.476	0	0	1
Increase in Unemployment insurance	12,206	0.361	0.480	0	0	1
Director's duties law	12,206	0.271	0.445	0	0	1
Other variables						
Leverage	12,206	0.402	0.232	0.212	0.389	0.570
Leverage1	12,002	0.251	0.224	0.053	0.206	0.391
Leverage2	12,201	0.272	0.228	0.076	0.231	0.416
Leverage3	12,196	0.281	0.236	0.077	0.238	0.433
Tangibility	12,206	0.715	0.372	0.434	0.716	0.996
Average sales per employee (thousands)	12,206	141.602	137.083	73.983	109.432	160.302
Market equity (millions)	12,206	1,811.307	4,358.448	38.119	222.698	1,301.855
Market-to-book	12,206	2.318	3.566	0.780	1.311	2.347
State GDP per capita	12,206	23,030	4,279	19,851	22,485	25,659
State GDP growth	12,206	0.027	0.037	0.005	0.030	0.051

Table 2: Labor protection and the leverage-employee pay relation: Baseline results

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay from OLS regressions for Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Column (1) to (3) shows results at the firm level. Tests in Column (4) and (5) are aggregated at the state and state-industry level, respectively. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors in Column (1), (2), (3), and (5) are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)				
	(1)	(2)	(3)	(4)	(5)
Good faith × Leverage		−0.241***	−0.241***	−0.578**	−0.384**
		(−2.814)	(−2.808)	(−2.411)	(−2.140)
Leverage	0.194***	0.219***	0.219***	0.364***	0.284***
	(3.302)	(3.540)	(3.542)	(3.373)	(5.084)
Good faith exception		0.090*	0.090*	0.239**	0.113
		(1.927)	(1.969)	(2.083)	(1.063)
Tangibility	0.086*	0.087*	0.087*	−0.034	0.059
	(1.761)	(1.772)	(1.749)	(−0.585)	(1.077)
Average sales per employee	0.001***	0.001***	0.001***	0.001***	0.000***
	(7.105)	(7.086)	(7.110)	(6.369)	(3.442)
Firm size	0.027***	0.028***	0.028***	0.037**	0.039***
	(5.395)	(5.391)	(5.411)	(2.273)	(5.215)
Market-to-book	0.005***	0.005**	0.005**	0.004	0.000**
	(2.871)	(2.613)	(2.620)	(1.139)	(2.253)
Log(State GDP per capita)			0.015	0.337**	0.107
			(0.109)	(2.065)	(0.775)
State GDP growth			−0.065	−0.727**	0.007
			(−0.294)	(−2.187)	(0.031)
Constant	2.524***	2.511***	2.365*	−0.330	1.598
	(22.054)	(21.529)	(1.737)	(−0.208)	(1.192)
State fixed effects	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes		Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	12,206	12,206	12,206	1,440	7,695
Adjusted R^2	0.502	0.502	0.502	0.527	0.475

Table 3: Cross-sectional heterogeneity: Financial constraints and distress

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay when the sample is split by financial constraints distress from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. In Panel A, financial constraints are defined as dividend nonpayers, unrated firms, and small firms. Small firms are defined as below-year median market equity. The more constrained firms are in Column (2), (4), and (6). In Panel B, financial distress are defined as below-year median Z score. The financially distressed firms are in Column (2). Control variables include Tangibility, Average sales per employee, Firm size, Market-to-book, Log(State GDP per capita), and State GDP growth. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

Panel A: Financial constraints	Log(Average employee pay)					
	Payer	Nonpayer	Rated	Unrated	Large	Small
	(1)	(2)	(3)	(4)	(5)	(6)
Good faith × Leverage	0.184	−0.348***	−0.143	−0.210**	−0.177	−0.250**
	(0.561)	(−3.296)	(−0.599)	(−2.211)	(−1.233)	(−2.230)
Leverage	0.306***	0.237***	0.332**	0.187**	0.292***	0.174*
	(3.041)	(2.897)	(2.250)	(2.640)	(4.452)	(1.918)
Good faith exception	−0.084	0.218*	−0.069	0.081*	0.066	0.104
	(−0.456)	(1.964)	(−0.496)	(1.810)	(0.931)	(1.378)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,846	4,360	1,748	10,458	6,094	6,094
Adjusted R^2	0.592	0.455	0.726	0.478	0.623	0.437

Panel B: Financial distress	Log(Average employee pay)	
	Non-distressed	Distressed
	(1)	(2)
Good faith × Leverage	−0.047	−0.394***
	(−0.279)	(−3.889)
Leverage	−0.020	0.229***
	(−0.264)	(3.086)
Good faith exception	−0.061	0.201***
	(−1.018)	(2.744)
Control variables	Yes	Yes
State fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	5,946	5,947
Adjusted R^2	0.553	0.514

Table 4: Cross-sectional heterogeneity: Industry-level labor bargaining power

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay when the sample is split by unionization rates from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Column (1) and (2) use the industry-level percentage of labor union coverage, while Column (3) and (4) use the industry-level percentage of labor union membership. High labor bargaining power is defined as above-year median. Firms with high labor bargaining power are in Column (2) and (4). All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)			
	Low coverage (1)	High coverage (2)	Low membership (3)	High membership (4)
Good faith × Leverage	−0.112	−0.257**	−0.134	−0.210*
	(−0.670)	(−2.223)	(−0.838)	(−1.688)
Leverage	0.201	0.192**	0.201	0.192**
	(1.404)	(2.610)	(1.471)	(2.510)
Good faith exception	−0.089	0.319**	−0.036	0.253
	(−0.500)	(2.400)	(−0.219)	(1.673)
Tangibility	−0.124	0.131*	−0.125	0.122*
	(−1.607)	(1.938)	(−1.619)	(1.833)
Average sales per employee	0.002***	0.001***	0.002***	0.001***
	(6.904)	(6.733)	(6.790)	(6.950)
Firm size	0.007	0.048***	0.006	0.049***
	(0.723)	(6.592)	(0.650)	(6.752)
Market-to-book	0.004	0.002	0.004	0.003
	(1.272)	(0.498)	(1.387)	(0.703)
Log(State GDP per capita)	−0.097	−0.508	−0.061	−0.520
	(−0.394)	(−1.230)	(−0.247)	(−1.321)
State GDP growth	0.332	−0.275	0.320	−0.372
	(0.732)	(−0.548)	(0.736)	(−0.823)
Constant	3.222	7.495*	2.901	7.614**
	(1.365)	(1.902)	(1.217)	(2.026)
State fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	2,961	2,983	2,981	3,008
Adjusted R^2	0.574	0.417	0.573	0.406

Table 5: Cross-sectional heterogeneity: Skilled labor

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay when the sample is split into unique industries and nonunique industries from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Skilled labor is defined by R&D expenses and skilled labor index. R&D firms are defined as firms with positive R&D expenses. Firms with high skilled labor are in Column (2) and (4). All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)			
	Non-R&D	R&D	Low-skill industries	High-skill industries
	(1)	(2)	(3)	(4)
Good faith × Leverage	−0.265**	−0.211	−0.652**	−0.443
	(−2.418)	(−1.447)	(−2.123)	(−1.137)
Leverage	0.270***	0.082	0.329**	0.267
	(2.886)	(1.166)	(2.074)	(0.804)
Good faith exception	0.080	0.088	0.287**	0.195
	(1.115)	(1.166)	(2.447)	(0.971)
Tangibility	0.121**	0.088***	−0.120	0.287**
	(2.021)	(2.925)	(−1.031)	(2.695)
Average sales per employee	0.002***	0.001***	0.004***	0.002***
	(8.097)	(4.936)	(6.747)	(5.053)
Firm size	0.027***	0.028***	−0.001	0.039
	(3.638)	(2.900)	(−0.032)	(1.459)
Market-to-book	−0.001	0.011***	0.007	−0.003
	(−0.194)	(3.719)	(0.678)	(−0.452)
Log(State GDP per capita)	0.095	−0.204	0.284	−0.284
	(0.670)	(−0.869)	(0.466)	(−0.620)
State GDP growth	−0.102	−0.152	0.446	0.526
	(−0.326)	(−0.794)	(0.966)	(0.560)
Constant	1.432	4.552**	−1.152	5.977
	(1.062)	(2.070)	(−0.194)	(1.357)
State fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	7,619	4,587	1,050	846
Adjusted R^2	0.537	0.320	0.658	0.326

Table 6: Cross-sectional heterogeneity: Labor layoff separation

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay when the sample is split by labor turnover from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Firms with high labor layoff are in Column (2). All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)	
	Low layoff	High layoff
	(1)	(2)
Good faith × Leverage	−0.169	−0.426***
	(−1.020)	(−3.037)
Leverage	0.177	0.224***
	(1.510)	(3.375)
Good faith exception	0.012	0.220***
	(0.097)	(3.247)
Tangibility	0.060	0.012
	(0.792)	(0.140)
Average sales per employee	0.002***	0.001***
	(5.197)	(5.521)
Firm size	0.009	0.055***
	(1.021)	(5.972)
Market-to-book	−0.004	0.004
	(−0.787)	(1.282)
Log(State GDP per capita)	−0.119	−0.155
	(−0.539)	(−0.656)
State GDP growth	0.005	0.180
	(0.012)	(0.584)
Constant	3.933*	4.067*
	(1.826)	(1.859)
State fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	3,756	4,478
Adjusted R^2	0.540	0.377

Table 7: Heckman two-step analysis

This table presents the Heckman two-step analysis of average employee pay. The sample consists of Compustat firms from 1969 to 2003. In Panel A, the first stage, we employ a probit model of whether a firm reports its total staff expenses. The dependent variable is a dummy that equals 1 if the firm has nonmissing data for the total staff expenses in Compustat and 0, if otherwise. The independent variables are the control variables of equation (1) plus the firm's listing exchange dummies. In Panel B, the second stage, we include the inverse Mills ratio derived from the first stage probit model into the equation (1). All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity, and standard errors of Panel B are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

Panel A: First stage	Reporting dummy
Leverage	−0.105***
	(−3.577)
Tangibility	0.455***
	(24.586)
Average sales per employee	0.0002***
	(4.958)
Firm size	0.135***
	(33.474)
Market-to-book	−0.001
	(−0.622)
Log(State GDP per capita)	−0.170*
	(−1.659)
State GDP growth	−0.383
	(−1.507)
Constant	−4.590***
	(−4.314)
Exchange dummies	Jointly significant
State fixed effects	Yes
Industry fixed effects	Yes
Year fixed effects	Yes
Observations	126,756
Panel B: Second stage	**Log(Average employee pay)**
Good faith × Leverage	−0.235***
	(−2.712)
Leverage	0.232***
	(3.744)
Good faith exception	0.078
	(1.635)
Tangibility	0.142**
	(2.386)
Average sales per employee	0.001***
	(7.090)
Firm size	0.052***
	(3.779)
Market-to-book	0.004**
	(2.667)
Log(State GDP per capita)	0.004
	(0.027)
State GDP growth	−0.121
	(−0.557)
Inverse mills ratio	0.176
	(1.611)
Constant	1.989
	(1.420)
State fixed effects	Yes
Industry fixed effects	Yes
Year fixed effects	Yes
Observations	12,206
Adjusted R^2	0.495

Table 8: Controlling for specific-time trends

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay from OLS regressions for Compustat firms from 1969 to 2003. The dependent variable is average employee pay. In Column (1) to (3), we control for Industry × Year, State × Year, or Region × Year fixed effects, respectively. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)		
	(1)	(2)	(3)
Good faith × Leverage	−0.244**	−0.255***	−0.303***
	(−2.526)	(−2.890)	(−3.531)
Leverage	0.180**	0.214***	0.214***
	(2.537)	(3.008)	(3.343)
Good faith exception	0.088*	−0.124**	0.104*
	(1.764)	(−2.067)	(1.700)
Tangibility	0.084	0.078	0.097*
	(1.533)	(1.391)	(1.929)
Average sales per employee	0.001***	0.001***	0.001***
	(6.970)	(6.225)	(6.957)
Firm size	0.027***	0.028***	0.028***
	(5.078)	(5.057)	(5.622)
Market-to-book	0.003	0.005**	0.005**
	(1.460)	(2.214)	(2.393)
Log(State GDP per capita)	−0.067	−0.288	0.433***
	(−0.441)	(−0.731)	(3.710)
State GDP growth	0.045	14.642	−0.119
	(0.270)	(0.712)	(−0.411)
Constant	3.645**	5.285	−1.750
	(2.448)	(1.198)	(−1.564)
State fixed effects	Yes		
Industry fixed effects		Yes	Yes
Industry × Year fixed effects	Yes		
State × Year fixed effects		Yes	
Region × Year fixed effects			Yes
Observations	12,206	12,206	12,206
Adjusted R^2	0.512	0.490	0.497

Table 9: Labor protection and the timing of changes in the leverage-employee pay relation
This table presents the timing of the good faith exception relative to the timing of leverage-employee pay sensitivity changes from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Good faith (-2) equals 1 if the firm is headquartered in a state will adopt the good faith exception the year after next, Good faith (-1) equals 1 if the firm is headquartered in a state will adopt the good faith exception next year, Good faith (0) equals 1 if the firm is headquartered in a state adopts the exception in the current year, Good faith (1) equals 1 if the firm is headquartered in a state adopted the exception 1 year ago, and Good faith (2+) equals 1 if the firm is headquartered in a state adopted the exception 2 or more years ago. Control variables include Tangibility, Average sales per employee, Firm size, Market-to-book, Log(State GDP per capita), and State GDP growth. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)
	(1)
Good faith (-2) × Leverage	0.127
	(0.679)
Good faith (-1) × Leverage	−0.188
	(−0.450)
Good faith (0) × Leverage	0.110
	(0.222)
Good faith (1) × Leverage	−0.113
	(−0.413)
Good faith (2+) × Leverage	−0.272***
	(−3.070)
Leverage	0.223***
	(3.613)
Good faith (-2)	−0.108
	(−0.922)
Good faith (-1)	0.063
	(0.263)
Good faith (0)	−0.099
	(−0.405)
Good faith (1)	0.011
	(0.080)
Good faith (2+)	0.106**
	(2.271)
Control variables	Yes
State fixed effects	Yes
Industry fixed effects	Yes
Year fixed effects	Yes
Observations	12,154
Adjusted R^2	0.503

Table 10: Propensity score matching

This table presents the effect of the good faith exception from panel OLS regressions using propensity score matched samples. Treatment and control firms are firms headquartered in states that adopt the good faith exception, respectively. We estimate propensity score on Leverage, Tangibility, Average sales per employee, Firm size, Market-to-book, GDP per capita, and GDP growth. We match each treatment firm at year t-1 to one control firm without replacement such that the logit of the closest propensity score are within caliper of 0.2 standard deviations at the same year and industry. Panel A reports the means of treated and control firms in Year t-1. Panel B presents the effect of the good faith adoption using matched samples. The dependent variable is average employee pay. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

Panel A: Comparison of means across matched samples in Year t-1

	Treated group (N = 60)	Control group (N = 60)	Difference	p-value of Difference
Propensity score	0.008	0.008	0.000	0.968
Leverage	0.430	0.408	0.021	0.623
Tangibility	0.720	0.796	−0.076	0.263
Average sales per employee	155.296	179.074	−23.779	0.472
Firm size	5.120	5.594	−0.473	0.260
Market-to-book	1.690	1.555	0.135	0.650
Log(State GDP per capita)	10.023	10.001	0.022	0.325
State GDP growth	0.025	0.021	0.004	0.570

Panel B: The effect of the good faith adoption for the matched sample

	Log(Average employee pay)
Good faith × Leverage	−0.336*
	(−1.728)
Leverage	0.311**
	(2.080)
Good faith exception	0.145
	(1.482)
Tangibility	0.138
	(1.392)
Average sales per employee	0.001***
	(4.186)
Firm size	0.071***
	(3.246)
Market-to-book	−0.008
	(−0.418)
Log(State GDP per capita)	−0.288
	(−0.914)
State GDP growth	0.136
	(0.453)
Constant	5.062
	(1.661)
Year fixed effects	Yes
Industry fixed effects	Yes
Observations	1,555
Adjusted R^2	0.646

Table 11: Alternative measures of leverage

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay for alternative measures of leverage from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Leverage1 in column (1) is defined as the ratio of long term debt plus debt due in 1 year to long term debt plus debt due in 1 year and the product of the number of common shares outstanding and the price per share, Leverage2 in column (2) is defined as the ratio of the short-term and long-term book value of debt to the short-term and long-term book value of debt plus the market value of equity, and Leverage3 in column (3) is defined as the ratio of total debt to total debt plus the market value of equity and preferred stock minus deferred taxes. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)		
	(1)	(2)	(3)
Good faith × Leverage1	−0.195**		
	(−2.451)		
Leverage1	0.097**		
	(2.562)		
Good faith × Leverage2		−0.156*	
		(−1.777)	
Leverage2		0.097**	
		(2.460)	
Good faith × Leverage3			−0.152*
			(−1.825)
Leverage3			0.102**
			(2.673)
Good faith exception	0.042	0.039	0.038
	(1.091)	(0.924)	(0.938)
Tangibility	0.094*	0.094*	0.092*
	(1.904)	(1.874)	(1.825)
Average sales per employee	0.001***	0.001***	0.001***
	(6.913)	(7.048)	(7.014)
Firm size	0.026***	0.025***	0.025***
	(5.073)	(5.047)	(5.099)
Market-to-book	0.003	0.003	0.003
	(1.549)	(1.565)	(1.622)
Log(State GDP per cpaita)	0.022	0.010	0.008
	(0.152)	(0.068)	(0.059)
State GDP growth	−0.073	−0.064	−0.058
	(−0.316)	(−0.293)	(−0.267)
Constant	2.381*	2.497*	2.507*
	(1.701)	(1.827)	(1.847)
State fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	12,002	12,201	12,196
Adjusted R^2	0.501	0.500	0.500

Table 12: The effects of other labor protection policies

This table presents the effect of other labor protection policies on the relationship between leverage and employee pay from OLS regressions for Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Control variables include Tangibility, Average sales per employee, Firm size, Market-to-book, Log(State GDP per capita), and State GDP growth. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)				
	(1)	(2)	(3)	(4)	(5)
Implied contract × Leverage	−0.063				
	(−0.956)				
Implied contract exception	0.020				
	(0.568)				
Public policy × Leverage		−0.129			
		(−1.384)			
Public policy exception		0.079			
		(1.646)			
Right to work × Leverage			−0.088		
			(−0.978)		
Right to work law			0.075		
			(0.681)		
Unemployment insurance × Leverage				−0.087	
				(−1.163)	
Unemployment insurance benefit				0.005	
				(0.107)	
Directors' duties × Leverage					−0.059
					(−0.775)
Directors' duties law					−0.012
					(−0.282)
Leverage	0.225***	0.261***	0.228***	0.228***	0.213***
	(2.940)	(2.953)	(2.813)	(3.785)	(3.328)
Control variables	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	12,206	12,206	12,206	12,206	12,206
Adjusted R^2	0.502	0.502	0.502	0.502	0.502

Appendix

Table A1: Variable definition

Variable	Definition (Compustat variable names are in bold)
Average employee pay	The total staff expenses (**xlr**) divided by the number of employees (**emp**). Source: Compustat
Good faith dummy	The dummy equals one if the state where a firm is headquartered has adopted the good faith exception in year t, and zero otherwise.
Implied contract dummy	The dummy equals one if the state where a firm is headquartered has adopted the implied contract exception in year t, and zero otherwise.
Public policy dummy	The dummy equals one if the state where a firm is headquartered has adopted the public policy exception in year t, and zero otherwise.
Right to work dummy	A dummy that equals one if the state s where a firm is headquartered has adopted right to work laws in year t, and zero otherwise.
Unemployment insurance benefits dummy	A dummy that equals one if the state s where a firm is headquartered has increased at least 10% of unemployment insurance benefits at the first time in year t, and zero otherwise.
Directors' duties dummy	A dummy that equals one if the state s where a firm is headquartered has adopted directors' duties laws in year t, and zero otherwise.
Book value of equity	Total assets (**at**) less the sum of total liabilities (**lt**) and preferred stock (**pstkl**) (or the redemption value of preferred stock (**pstkrv**) if preferred stock is missing) plus deferred taxes (**txditc**) and convertible debt (**dcvt**). Source: Compustat
Leverage	The ratio of total assets (**at**) minus the book value of equity to total assets minus the book value of equity plus the market value of equity (**prcc_f** * **csho**). Source: Compustat
Firm size	The natural log of the market value of equity (**prcc_f** * **csho**). Source: Compustat
Average sales per employee	The total sales (**sale**) divided by the number of employees (**emp**). Source: Compustat
Market to book ratio	The ratio of market value of equity (**prcc_f** * **csho**) to the book value of equity. Source: Compustat
Tangibility	The ratio of gross property, plant, and equipment (**ppegt**) to total assets (**at**). Source: Compustat
State GDP per capita	The GDP of a state scaled by its total population. Source: Bureau of Economic Analysis and US Census Bureau
State GDP growth	The annual state-level GDP growth rate. Source: Bureau of Economic Analysis
Leverage1	The ratio of long term debt (**dltt**) plus debt due in one year (**dd1**) to long term debt plus debt due in one year and the market value of equity (**prcc_f** * **csho**). Source: Compustat
Leverage2	The ratio of the short-term and long-term book value of debt (**dlc** + **dlt**) to the short-term and long-term book value of debt plus the product of the number of common shares outstanding and the price per share (**prcc_f** * **csho**). Source: Compustat
Leverage3	The ratio of total debt (**dltt** + **dlc**) to total debt plus the market value of equity (**prcc_f** * **csho**) and preferred stock (**pstkl**) minus deferred taxes (**txditc**). Source: Compustat
Altman's Z score	The sum of 3.3 * earnings before interest and taxes (**pi**), sales (**sale**), 1.4 * retained earnings (**re**), and 1.2 * working capital (**act** - **lct**) divided by total assets (**at**). Source: Compustat

Table A2: Cross-sectional heterogeneity: State-level labor bargaining power

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay when the sample is split by unionization rates from OLS regressions. The sample consists of Compustat firms from 1969 to 2003. The dependent variable is average employee pay. Column (1) and (2) use the state-level percentage of labor union coverage, while Column (3) and (4) use the state-level percentage of labor union membership. High labor bargaining power is defined as above-year median. Firms with high labor bargaining power are in Column (2) and (4). All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)			
	Low coverage	High coverage	Low membership	High membership
	(1)	(2)	(3)	(4)
Good faith × Leverage	−0.074	−0.381***	−0.095	−0.363***
	(−0.536)	(−4.309)	(−0.704)	(−3.624)
Leverage	0.117	0.242***	0.126	0.252***
	(1.289)	(2.880)	(1.326)	(3.021)
Good faith exception	−0.028	0.369***	0.033	0.373***
	(−0.215)	(2.868)	(0.248)	(2.875)
Tangibility	0.054	0.027	0.045	0.033
	(0.902)	(0.358)	(0.722)	(0.436)
Average sales per employee	0.002***	0.002***	0.002***	0.002***
	(6.579)	(7.449)	(6.532)	(7.205)
Firm size	0.026***	0.030***	0.028***	0.029***
	(3.236)	(3.352)	(3.297)	(3.293)
Market-to-book	0.004	0.005**	0.004	0.005**
	(0.960)	(2.401)	(0.972)	(2.276)
Log(State GDP per capita)	−0.214	−0.230	−0.138	−0.285
	(−0.642)	(−0.513)	(−0.409)	(−0.666)
State GDP growth	0.037	1.145*	0.034	1.095*
	(0.121)	(2.007)	(0.116)	(1.954)
Constant	4.542	4.784	3.835	5.328
	(1.365)	(1.070)	(1.138)	(1.242)
State fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	3,308	3,379	3,263	3,406
Adjusted R^2	0.549	0.516	0.557	0.516

Table A3: The sample without geographically dispersed industries

This table presents the effect of the good faith adoption on the relationship between leverage and employee pay from OLS regressions for Compustat firms from 1969 to 2003. We exclude the retail, wholesale, and transportation industries, whose employees are likely to be geographically dispersed. The dependent variable is average employee pay. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)
	(1)
Good faith × Leverage	−0.230**
	(−2.327)
Leverage	0.239***
	(3.173)
Good faith exception	0.138**
	(2.357)
Tangibility	−0.022
	(−0.386)
Average sales per employee	0.002***
	(6.658)
Firm size	0.029***
	(5.073)
Market-to-book	0.005**
	(2.412)
Log(State GDP per capita)	−0.085
	(−0.553)
State GDP growth	−0.033
	(−0.121)
Constant	3.493**
	(2.346)
State fixed effects	Yes
Industry fixed effects	Yes
Year fixed effects	Yes
Observations	9,171
Adjusted R^2	0.518

Table A4: The effects of labor protection policies: 1967-1995

This table presents the effect of labor protection policies on the relationship between leverage and employee pay from OLS regressions for Compustat firms from 1967 to 1995. The dependent variable is average employee pay. Control variables include Tangibility, Average sales per employee, Firm size, Market-to-book, Log(State GDP per capita), and State GDP growth. All continuous variables except macroeconomic variables are winsorized at the 1st and 99th, and dollar amounts are deflated to 1992 dollars using the consumer price index. Appendix Table A1 provides the complete variable definitions. The t-statistics are in parentheses and are robust to heteroskedasticity and standard errors are clustered by state. The significance levels of 10%, 5%, and 1% are represented by *, **, and ***, respectively.

	Log(Average employee pay)					
	(1)	(2)	(3)	(4)	(5)	(6)
Good faith × Leverage	−0.370***					
	(−3.284)					
Good faith exception	0.151***					
	(3.003)					
Implied contract × Leverage		0.029				
		(0.369)				
Implied contract exception		−0.029				
		(−0.747)				
Public policy × Leverage			−0.108			
			(−0.882)			
Public policy exception			0.065			
			(1.019)			
Right to work × Leverage				−0.117		
				(−1.050)		
Right to work law				0.206*		
				(1.758)		
Unemployment insurance × Leverage					0.069	
					(0.561)	
Unemployment insurance benefit					−0.033	
					(−0.574)	
Directors' duties × Leverage						0.063
						(0.555)
Directors' duties law						−0.053
						(−1.226)
Leverage	0.243***	0.202**	0.261**	0.257**	0.193***	0.201***
	(3.067)	(2.594)	(2.385)	(2.387)	(2.814)	(2.749)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,837	9,837	9,837	9,837	9,837	9,837
Adjusted R^2	0.503	0.502	0.502	0.502	0.502	0.502