

# CORPORATE SOCIAL RESPONSIBILITY AS AN EMPLOYEE GOVERNANCE TOOL: EVIDENCE FROM A QUASI-EXPERIMENT

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**Research summary:** This study examines whether companies employ corporate social responsibility (CSR) to improve employee engagement and mitigate adverse behavior at the workplace (e.g., shirking, absenteeism). We exploit plausibly exogenous changes in state unemployment insurance (UI) benefits from 1991 to 2013. Higher UI benefits reduce the cost of being unemployed and hence increase employees' incentives to engage in adverse behavior. We find that higher UI benefits are associated with higher engagement in employee-related CSR. This finding suggests that companies use CSR as a strategic management tool—specifically, an employee governance tool—to increase employee engagement and counter the possibility of adverse behavior. We further examine plausible mechanisms underlying this relationship.

**Managerial summary:** This study examines whether companies employ corporate social responsibility (CSR) to improve employee engagement and mitigate adverse behavior at the workplace (e.g., shirking, absenteeism). We find that companies react to increased risk of adverse behavior by strategically increasing their investment in employee-related CSR (e.g., work-life balance benefits, health and safety policies). Our findings have important managerial implications. In particular, they suggest that CSR may help companies motivate and engage their employees. Hence, companies dealing with employees that are unmotivated, regularly absent, or engage in other forms of adverse behavior, may find it worthwhile to design and implement effective CSR practices. Further, our findings suggest that CSR can be used as employee governance tool. Accordingly, managers could benefit from integrating CSR considerations into their strategic planning. Copyright © 2015 John Wiley & Sons, Ltd.

## INTRODUCTION

It is often argued that employees are a firm's most valuable asset and a key source of competitive advantage (e.g., Coff, 1997). For example, Jack Welch—former CEO of General Electric and named “Manager of the Century” by *Fortune*

magazine—argues that “[a]ny company trying to compete must figure out a way to engage the mind of every employee” (Buckingham and Coffman, 1999: 273). A primary difficulty in managing employees is adverse behavior—also known as “moral hazard” in the economics literature. Adverse behavior arises in situations where the interests of employees and the firm are misaligned, and employees' motivation and effort are imperfectly observed.

Situations of adverse behavior at the workplace come in many flavors. They include counterproductive employee behavior such as showing reduced interest, effort, or attentiveness (Rusbult *et al.*, 1988); employee theft or fraud (Dickens *et al.*,

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1989; Pierce, Snow, and McAfee, 2015; Schnatterly, 2003); avoiding cognitively difficult activities (Bertrand and Mullainathan, 2003); being chronically late or absent (Markham and McKee, 1991; Scoppa, 2010); or disengaged behavior such as using company time for personal business and on-the-job searches for better jobs (e.g., Acemoglu and Shimer, 2000; Rusbult *et al.*, 1988)—all of which incur large economic costs to the firm. Accordingly, figuring out how to engage and effectively manage employees in general (i.e., regardless of their skill and rank)—and employees with valuable skills and knowledge in particular—is essential for firms' competitiveness and at the very core of strategic management (e.g., Castanias and Helfat, 1991, 2001; Coff, 1997; Gottschalg and Zollo, 2007; Makadok, 2003).

The extant literature in management and economics has long recognized the strategic importance of overcoming this challenge and aligning individual with organizational interests as a potential source for generating a sustainable competitive advantage (e.g., Gottschalg and Zollo, 2007). While the management literature emphasizes the role of employee motivation and engagement in sustaining a competitive advantage, the economics literature highlights the need to incentivize employees to work efficiently. In essence, these two strands of literature are two sides of the same coin. They both suggest that employees compare their available options. If employees perceive the current employment to be superior in relation to their alternative options, then their job motivation is higher, and they are less likely to engage in adverse behavior at the workplace. It follows that firms can mitigate employees' propensity to engage in adverse behavior—or conversely, improve employees' job motivation and engagement—by enhancing employees' perception of the current employment compared to their alternative options, or by improving the monitoring of their employees (e.g., Coff, 1997).

To align individual with organizational interests, firms can use various employee governance tools. Yet, designing effective employee governance tools is challenging.<sup>1</sup> This challenge has spurred a

large literature. Broadly speaking, the extant literature in management and economics focuses on the design of *monetary* incentives, and argues that tying worker compensation directly to firm outcomes via performance pay can help align the interests of employees with those of the firm (e.g., Holmstrom, 1979). Nevertheless, a large literature points at the pitfalls of monetary incentives (see the reviews of Akerlof and Kranton, 2005; Gibbons, 1998; Prendergast, 1999). First, performance-pay compensation schemes can be based only on variables that are observable to management (e.g., output or profits). However, such variables are imperfect indicators of individual effort—for example, output often derives from workers' collective efforts in a team (e.g., Holmstrom, 1982). Second, monetary incentive schemes can create incentives for workers to “game the system” (Frank and Obloj, 2014; Larkin, 2014; Oyer, 1998), sabotage the work of their co-workers (e.g., Lazear, 1989), or engage in corporate misconduct (Harris and Bromiley, 2007). Third, if the job involves multiple tasks, employees have an incentive to overperform on the tasks that are well rewarded and underperform on other tasks (e.g., Holmstrom and Milgrom, 1991). Fourth, performance-pay compensation schemes often show a weak link between pay and performance, and trigger equity concerns and dissatisfaction (e.g., Larkin, Pierce, and Gino, 2012; Nickerson and Zenger, 2008; Pfeffer and Langton, 1993; Zenger, 1992). Finally, and importantly, monetary incentives can easily be imitated by other firms and hence may not be effective in sustaining a firm's competitive advantage (Coff, 1997). Overall, the theoretical arguments and empirical evidence in support of the effectiveness of monetary incentives to motivate employees and alleviate adverse behavior at the workplace remain tenuous, and the question of how to achieve these objectives remains a challenging issue.<sup>2</sup>

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they have increased bargaining power and, as a result, are better able to appropriate rents (e.g., Castanias and Helfat, 1991, 2001; Coff, 1999). Relatedly, these key employees may be reluctant to make project- and firm-specific investments as such investments are not easily redeployable and would place them in a weaker bargaining position (Wang, He, and Mahoney, 2009; Wang and Lim, 2008; Wang and Wong, 2012).

<sup>2</sup> Another type of incentives are awards (e.g., Gallus and Frey, 2015; Gubler, Larkin, and Pierce, 2015). Awards are generally seen as cheap and easy alternatives to pay-for-performance. Yet, recent research shows that awards are also subject to major pitfalls. In particular, Gubler *et al.* (2015) show that even purely symbolic awards generate gaming behavior and crowd out intrinsic

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<sup>1</sup> In particular, an effective employee governance tool needs to consider the implications for both rent creation and appropriation. Considering the latter is particularly relevant for managing employees with valuable skills and knowledge. Given their strategic importance for achieving a sustainable competitive advantage,

While the extant literature focuses mainly on pecuniary incentives, the role of *relationship-based* incentives and motivators—such as corporate social responsibility (CSR)—to alleviate concerns of adverse behavior has been mostly ignored, especially in strategy research.<sup>3</sup> This is a significant void in the literature, given that many managers view CSR activities as important, and substantial investments are made by firms in CSR programs (see the surveys of Accenture and UNGC, 2010; MIT Sloan Management Review, 2012). In particular, a large number of CSR programs are employee-related (e.g., Flammer, 2015a). Examples of employee-related CSR programs include, for example, investments in work-life balance (e.g., childcare, flextime), health and safety, and employee involvement.

In this article, we aim to fill this void by exploring whether companies employ corporate social responsibility (CSR) to improve employee engagement and mitigate adverse behavior at the workplace. Drawing from the strategy and management literature, we theorize that CSR can be used as a strategic tool to improve employee governance. In particular, we argue that strategic CSR investments entail *nurturing* and *constraining* mechanisms that (1) help align the incentives between employees and the firm, (2) decrease the attractiveness of outside jobs, and (3) diminish information asymmetry. Specifically, by nurturing the relationship to their employees, firms are better able to attract a higher-quality workforce, foster employees' commitment to organizational values and practices, and retain talented employees (e.g., Albinger and Freeman, 2000; Greening and Turban, 2000; Huselid, 1995; Peterson, 2004; Pfeffer, 1994; Sheridan, 1992; Turban and Greening, 1996; Vogel, 2005; Wang *et al.*, 2009). Moreover, by implementing modern organizational control techniques and processes (Pierce *et al.*, 2015), and by building a cohesive team that enforces social norms and sanctions against social loafing (Coleman, 1988), firms are better able to monitor employees' behavior and hence reduce the unobservability of employees' effort. Finally, CSR programs are firm-specific

incentives that are relatively difficult (compared to monetary incentives) to imitate by other companies and allow the focal firm to align employees' interests with organizational goals without directly allocating rents to their employees. As such, CSR may serve as a key employee governance tool to achieve a sustainable competitive advantage from human capital. In line with these arguments, we posit that companies react to increased risk of adverse behavior by strategically increasing their investment in employee-related CSR.

To address this question empirically, we exploit plausibly exogenous changes in state unemployment insurance (UI) benefits, and examine how they affect employee-related CSR policies of U.S. firms from 1991 to 2013. Higher UI benefits reduce the cost of being unemployed and hence increase employees' incentives to engage in adverse behavior. This mechanism is well grounded in the economics literature. Indeed, the generosity of UI benefits reduces the "penalty" associated with being fired, and hence makes the threat of firing less effective. As a result, employees are more likely to shirk when UI benefits are higher (e.g., Shapiro and Stiglitz, 1984). Relatedly, the management literature highlights the strategic importance of aligning individual with organizational interests to motivate and engage employees for generating a sustainable competitive advantage (e.g., Coff, 1997; Gottschalg and Zollo, 2007). In particular, this strand of literature suggests that if employees perceive the current employment to be superior in relation to their outside options, then their job motivation is higher. More generous UI benefits increase the attractiveness of alternative options—as those may involve a spell of unemployment—and hence may reduce employees' motivation and dedication toward their current employment.

We find that higher UI benefits are associated with higher engagement in employee-related CSR—as measured by the employee-related CSR scores from the Kinder, Lydenberg, and Domini (KLD) database. This result is consistent with the argument that companies use employee-related CSR as an employee governance tool to increase employee engagement and counter the possibility of adverse behavior.<sup>4</sup>

motivation. More broadly, Larkin and Pierce (2015) emphasize the duality problem of compensation systems by stressing that "systems that increase productive behavior usually also increase misconduct even, at times, by the exact same employee" (p. 2).

<sup>3</sup> A notable exception is the literature on psychological contracts (e.g., Rousseau, 1995).

<sup>4</sup> Admittedly, the boundaries between financial incentives and CSR are sometimes blurry. Some CSR provisions may include a financial component, in which case financial incentives may be at work as well. Nevertheless, it is unlikely that our results are driven

In auxiliary analyses, we further examine the underlying mechanisms. In particular, we find that the increase in employee-related CSR is larger for companies operating in industries that are more labor-intensive, more competitive, and subject to higher levels of stakeholder dissatisfaction. These findings suggest that companies increase their CSR in order to (1) improve employees' productivity, (2) differentiate themselves from their competitors, and (3) decrease employees' dissatisfaction associated with firms' stigmatized image.

Finally, we note that our results are consistent with anecdotal evidence. In particular, the business press highlights the need to motivate and engage employees in the presence of safety nets such as generous UI benefits. For example, in a recent *Atlantic Magazine* (2015) article entitled "All the Happy Workers," commentators note that "[f]ew private-sector managers are required to negotiate with unions any longer, but nearly all of them confront a much trickier challenge, of dealing with employees who are regularly absent or unmotivated. [...] In societies with socialized health insurance and unemployment insurance, the problem is far more serious." The article further discusses companies' use of CSR programs to address this challenge, such as Unilever's CSR program "Lamp-lighter": "The 'Lamp-lighter' health and well-being program was the result. [...] The business benefits for Lamp-lighter quickly became clear, with evaluations suggesting that every £1 spent on the program yielded £3.73 in return. It was quickly rolled out across dozens of Unilever offices around the world before being extended to cover the rest of the workforce."

## THEORY

The strategy literature identifies human capital, tangible, and intangible resources as critical strategic firm resources for achieving a sustainable competitive advantage (Barney, 1991). Yet, compared to tangible and intangible resources, human capital is associated with severe information problems as

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by the monetary motive as employee-related CSR entails several nonmonetary benefits such as gay and lesbian policies, contracting with women and minorities, work-life balance programs, etc. Indeed, in auxiliary analysis, we obtain similar results when we use an alternative definition of employee-related CSR where we exclude KLD provisions that could be construed as having a monetary component.

employee motivation and work efforts are difficult to observe. This represents a key managerial challenge and overcoming it is at the very core of strategic management (e.g., Castanias and Helfat, 1991, 2001; Coff, 1997; Gottschalg and Zollo, 2007).

### UI benefits and employees' adverse behavior

In economic theory, a necessary condition for adverse behavior ("moral hazard") is the presence of information asymmetry, that is, a situation in which one party has more information than another. Adverse behavior occurs when the party with more information has an incentive to behave in a way that is detrimental to the party with less information. Adverse behavior typically arises in so-called principal-agent relationships, where one party (the "agent") acts on behalf of another party (the "principal"). In this setup, the agent has more information about his or her actions than the principal does because the principal cannot perfectly monitor the agent. If the interests of the agent and the principal are misaligned, the agent may have an incentive to act in a way that is detrimental to the principal.

Going back to the work of Holmstrom (1979), the economics literature commonly uses the principal-agent framework to conceptualize the employee-employer relationship. The employee (the agent) is hired by the employer (the principal) to act in the employer's best interest, that is, to provide a high level of effort. However, if the employer cannot perfectly monitor the employee's effort, the latter has an incentive to shirk by providing low effort.

In their seminal article, Shapiro and Stiglitz (1984) explicitly model the relationship between UI benefits ( $\bar{w}$ ) and effort ( $e$ ). A key result of their comparative static is that employees exert less effort (i.e., they "shirk") when UI benefits are high. Their interpretation is that "the existence of unemployment benefits reduces the 'penalty' associated with being fired" (p. 434), and hence "makes the threat of firing less severe." Intuitively, employees choose to shirk when the expected benefit of shirking is higher than the expected cost of being fired.<sup>5</sup> Since UI benefits reduce the expected cost of being fired, employees are more likely to shirk when UI benefits are higher.

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<sup>5</sup> The cost of being fired is far-reaching and includes the monetary loss of unearned wages, decline in social status, decline in psychological and physical well-being, family disruptions, and so on (see, e.g., Brand, 2015).

The Shapiro and Stiglitz (1984) study has spurred a large literature that examines the potential incentive effects of labor market institutions (e.g., Meyer, 1990, 1995; Topel, 1984; Topel and Welch, 1980). In particular, several empirical studies show that workers' safety nets, such as the UI system and employee protection legislations (EPL), increase employees' tendencies to engage in adverse behavior. Most notably, Ichino and Riphahn (2005) and Scoppa (2010) show that the Italian labor market reform of 1990 led to a significant increase in employee absenteeism and shirking, respectively. Relatedly, Autor, Donohue, and Schwab (2006) show that the passage of U.S. employment protection laws led to a drop in productivity. Bassanini, Nunziata, and Venn (2009) document a similar pattern across OECD countries.

### UI benefits and employee engagement

While the economics literature emphasizes the need to incentivize employees to work efficiently, the management literature highlights the strategic importance of aligning individual with organizational interests to motivate and engage employees for generating a sustainable competitive advantage (e.g., Castanias and Helfat, 1991, 2001; Coff, 1997; Gottschalg and Zollo, 2007). In particular, this strand of literature suggests that employees—regardless of their skill and rank—compare their available options. If employees perceive the current employment to be superior in relation to their outside options, then their job motivation is higher, and they are less likely to engage in adverse behavior such as showing reduced interest, effort, or attentiveness (Rusbult *et al.*, 1988); employee theft or fraud (Dickens *et al.*, 1989; Pierce *et al.*, 2015; Schnatterly, 2003); absenteeism (Markham and McKee, 1991); and so on.

Generous UI benefits increase the attractiveness of alternative options—as those may involve a spell of unemployment. In this vein, Acemoglu and Shimer (2000) show that when UI benefits are high, employees are more likely to use company time for on-the-job searches for better jobs. More broadly, generous UI benefits may reduce employees' motivation and dedication toward their current employer as alternative options become relatively more appealing and more salient to employees.<sup>6</sup>

<sup>6</sup> Relatedly, employees are more likely to take risks when UI benefits are high. Gormley, Liu, and Zhou (2010) show that

### Corporate social responsibility and employee governance

The above arguments imply that there are three potential levers that can be pulled to improve employee engagement and mitigate employees' adverse behavior: (1) the alignment of incentives between employees and the firm; (2) the attractiveness of outside jobs; and (3) information asymmetry. While the extant literature in management and economics focuses mostly on the design of monetary incentives, we argue that relationship-based incentives and motivators—such as CSR programs—could provide an attractive alternative as an employee governance tool. In the following, we argue that CSR initiatives have an impact on all three levers.

First, CSR programs may align incentives between firms and employees by appealing to their general justice perception (Colquitt *et al.*, 2001) and by altering employees' identification with the firm (Tajfel and Turner, 1979). Employees draw clues from the firm's CSR engagement about whether the managers and the firm are fair-minded on an individual, group, and universal level (Aguilera *et al.*, 2007), and evaluate whether the firm's attitudes fit with individuals' identity (Kim *et al.*, 2010). If they fit, the employees develop a sense of belonging, and their future actions are oriented toward reinforcing this identification. Thus, when firms are engaged in CSR initiatives that their employees value, their incentives become more aligned. In other words, identification serves as an important supplement to monetary compensation in motivating employees (Akerlof and Kranton, 2005). Moreover, by fostering interpersonal relationships, offering training and advancement opportunities, participation in decision making, and other firm-specific incentives, companies may be able to raise employees' perception of the current job (e.g., Coff, 1997). In line with this argument, several empirical studies show that firms that implement employee-related CSR programs and are perceived as being fair and caring are better able to attract a higher-quality workforce, foster employees' engagement and commitment to organizational values and practices, and retain talented employees (Albinger and Freeman, 2000;

employees are more inclined to invest their personal savings in risky assets when UI benefits are higher. This further indicates that changes in UI benefits are salient to employees and affect their behavior.

Greening and Turban, 2000; Nagin *et al.*, 2002; Turban and Greening, 1996). Relatedly, Flammer (2015a) shows that most shareholder proposals on CSR are employee-related, and that the passage of such proposals leads to an increase in labor productivity. Similarly, Edmans (2011, 2012), and Edmans, Li, and Zhang (2015) show that companies with higher employee satisfaction earn higher abnormal returns compared to their peers.

Second, CSR programs may differentiate firms from their competitors and hence reduce the attractiveness of other employers. The literature on identity argues that identification is based not only on defining the social category that a person identifies with, but also and perhaps more importantly, the category that a person does *not* identify with (Albert and Whetten, 1985; Ashforth and Mael, 1989). The affiliation of members toward the in-group is reinforced by the rivalry identity from the out-group. Thus, CSR programs divide firms into two categories—those that are socially-minded and those that are not—and hence reduce the substitutability between different companies. The notion that CSR differentiates firms echoes well with the view of “CSR as a competitive strategy” and the argument that differentiation through CSR is likely to work better for firms that are similar along other dimensions such as firms competing in the same product market (Flammer, 2015b).

Third, some elements of CSR programs act as a disciplining device, and implementing them may reduce information asymmetry between employees and employers. For example, employee involvement programs create a fairer work environment (Brockner, 2006; Freeman and Kleiner, 2000) as well as opportunities for the management and employees to work together. Through closer interactions, managers are better able to understand workers’ motivation, ability, and effort levels, thus alleviating the risk of adverse behavior. Also, firms may employ technological solutions such as surveillance to improve workplace safety, and the same technology can be used toward enhancing the firm’s monitoring ability (Pierce *et al.*, 2015).

In sum, all three arguments imply that CSR may help mitigate employees’ adverse behavior. Moreover, CSR is likely to circumvent the “duality” problem of monetary incentives—that is, the fact that compensation schemes that improve productive behavior often tend to also induce counterproductive behavior (Larkin and Pierce, 2015). What is

more, CSR programs are firm-specific and arguably less easily imitable by other companies than monetary incentives. Hence, we argue that CSR can serve as an employee governance tool that helps sustain a firm’s competitive advantage from human capital. This motivates the following hypothesis:

*Hypothesis 1: Companies respond to an exogenous increase in unemployment insurance benefits by increasing their employee-related CSR.*

The core tenet of our theory is that CSR may serve as an employee governance tool to counter adverse behavior at the workplace—or conversely improve employees’ motivation and engagement. Since core resources and capabilities often become specialized to the firm’s particular operating context (e.g., Barney, Wright, and Ketchen, 2001), we expect that the strategic value of CSR as an employee governance tool varies across industries. In particular, we argue that the effective management of firms’ human capital resources is likely to be more important (1) in labor-intensive industries, where companies’ operations rely more substantially on human capital; (2) in competitive industries, where it is vital for firms to motivate and engage their employees to minimize inefficiencies and maintain high labor productivity (e.g., Alchian, 1950; Friedman, 1953; Stigler, 1958); and (3) in stigmatized industries—that is, industries that are more prone to stakeholder dissatisfaction—where we expect a more pressing need to improve employees’ motivation and engagement by enhancing their perception of the current employment. We discuss and examine these additional arguments in auxiliary analyses.

## DATA AND METHODOLOGY

### Data and variable definitions

#### *Sample selection*

The sample used in this study is obtained by merging the KLD database with Standard & Poor’s Compustat. The KLD database contains annual ratings of companies’ social and environmental performance from 1991 to 2013; Compustat contains accounting information as well as additional firm level information (e.g., industry classification, state of location, etc.) for U.S. public companies. We exclude observations with missing accounting information as well

as companies that are located outside of the United States. These criteria leave us with a final sample of 29,666 firm-year observations from 1991 to 2013.

*Dependent variable: employee-related CSR*

The CSR data are obtained from the KLD database. KLD is an independent social choice investment advisory firm that compiles ratings of how companies address the needs of their stakeholders. Over time, KLD's coverage has expanded considerably. Until 2000, the data cover companies in the S&P 500 Index and the Domini 400 Social Index. In 2001, coverage was extended to companies in the Russell 1,000 Index. In 2003, it was further extended to companies in the Russell 2,000 Index (see KLD, 2010). KLD ratings are widely used in CSR studies (e.g., Berman *et al.*, 1999; Deckop, Merriman, and Gupta, 2006; Hillman and Keim, 2001; Waddock and Graves, 1997).

The KLD database contains social ratings of companies along several dimensions, including community, employee relations, diversity, environment, human rights, product quality, corporate governance, and whether firms' operations are related to alcohol, firearms, gambling, tobacco, nuclear power, and military contracting. As we aim to investigate whether CSR provides a remedy for employees' adverse behavior, we focus on those KLD components that are related to the company's employees. More specifically, we construct an employee-related KLD-index by summing up all KLD strengths pertaining to employee relations (e.g., employee involvement, health and safety policies, etc.) and diversity (e.g., promotion of women and minorities, work-life benefit programs such as childcare, elder care, or flextime, etc.).<sup>7</sup> The

complete list of employee-related KLD strengths is provided in Appendix S1 (which can be found online).<sup>8</sup>

In our sample, the average employee-related KLD-index is 0.88. The components that are most common are promotion of women and minorities (16% of all observations), gay and lesbian policies (11%), employee involvement (8%), minority representation on the board of directors (7%), and work-life benefit programs (6%).

*Independent variable: UI benefits*

The UI system in the United States provides temporary income to eligible workers who become unemployed through no fault of their own (i.e., involuntarily) and meet the eligibility requirements under the relevant state law.<sup>9</sup> The UI system dates back to 1935 when the government enacted the Social Security Act, a social welfare legislative act that created the Social Security system. Through this act, the government effectively encouraged individual states to adopt UI plans, resulting in state-specific UI regimes that differ in, for example, the amount and duration of UI benefits. The UI benefits are mostly financed through taxes paid by firms and aggregated over time into individual state trust funds.<sup>10</sup>

The data on state-level UI benefits are obtained from the U.S. Department of Labor's "Significant Provisions of State UI Laws." These publications provide detailed information on UI benefits (e.g., maximum weekly benefit amount, maximum duration, etc.) for each state and year from 1937 onward. To measure the generosity of UI benefits, we follow Agrawal and Matsa (2013), and compute a state's UI benefit as the product of the maximum benefit amount and the maximum duration allowed.

During the sample period (1991–2013), the average UI benefit across all states is about \$8,840 (\$340 per week × 26 weeks). Substantial variation exists

<sup>7</sup> In addition to CSR strengths, the KLD data also contain a list of CSR concerns. Accordingly, an alternative approach is to construct a "net" KLD-index by subtracting the concerns from the strengths. However, recent research suggests that this approach is methodologically questionable. Because KLD strengths and concerns lack convergent validity, using them in conjunction fails to provide a valid measure of CSR (e.g., Kacperczyk, 2009; Mattingly and Berman, 2006). For this reason, our analysis relies on the index of KLD strengths. Relatedly, although "KLD's social and environmental ratings are among the oldest and most influential and, by far, the most widely analyzed by academics" (Chatterji, Levine, and Toffel, 2009, p. 127), recent research highlights the difficulty of accurately measuring CSR (Chatterji *et al.*, 2009, 2015). Such measurement issues are important, yet it is unclear how they would spuriously generate the set of results presented in this study. Moreover, in auxiliary analysis (see Columns [1]–[2] of Table 4), we decompose the employee-related

KLD-index into two subcomponents and find similar results for both. At the very least, this suggests that our findings are not the spurious outcome of one mismeasured individual KLD provision.

<sup>8</sup> None of the individual KLD provisions is related to UI benefits or the UI system. Accordingly, there is no reason to expect a mechanical link between UI benefits and the employee-related KLD-index.

<sup>9</sup> In general, workers who are involuntarily unemployed and actively seek new employment are eligible for benefits. In contrast, employees who leave their jobs voluntarily are not eligible for UI benefits.

<sup>10</sup> For more details, see U.S. Department of Labor (2013).

Table 1. Summary statistics

Variable	Mean	SD	Min	Max	1	2	3	4	5	6	7	8
1 KLD (emp.)	0.879	1.436	0.000	12.000								
2 Log(UI benefits)	9.223	0.330	8.156	10.288	0.022							
3 Size	7.276	1.757	1.498	14.674	0.461	-0.106						
4 Return on assets	0.107	0.154	-5.316	0.458	0.108	-0.131	0.152					
5 Tobin's Q	2.015	1.784	0.531	62.349	0.025	0.021	-0.291	-0.068				
6 Cash holdings	0.172	0.205	0.000	0.964	-0.054	0.202	-0.435	-0.325	0.413			
7 Leverage	0.217	0.214	0.000	3.676	0.033	-0.080	0.248	-0.004	-0.123	-0.309		
8 GDP growth (state level)	0.042	0.031	-0.133	0.222	0.045	-0.219	0.047	0.090	0.092	-0.051	0.000	
9 Unemployment (state level)	6.467	2.153	2.300	13.800	-0.035	0.181	-0.046	-0.088	-0.041	0.130	-0.029	-0.453

The sample includes all firm-year observations for companies in the merged KLD-Compustat sample from 1991 to 2013 ( $N = 29,666$ ).

across states. For example, in 2013, UI benefits vary from \$5,720 in Mississippi to \$30,330 in Massachusetts.

The evolution of UI benefits on a state-by-state basis is graphically depicted in Figure A1 of Appendix S1 (states are classified according to the four U.S. Census regions—Midwest, Northeast, South, and West). As can be seen, UI benefits have been trending upward during the sample period.<sup>11</sup> More importantly, there is substantial heterogeneity in UI benefits trends across states. Hence, the time variation in UI benefits is not dominated by a single state or a group of states. Finally, large increases in UI benefits are not uncommon (e.g., Minnesota in 2000, Massachusetts in 2001, etc.).<sup>12</sup>

### Control variables

In our analysis, we control for a vector of firm- and state-level characteristics that may affect employee-related CSR and state UI benefits.

**Firm-level controls.** The set of firm-level controls are obtained from Compustat. *Size* is the natural logarithm of the book value of total assets. *Return on assets* (ROA) is the ratio of operating income

before depreciation to the book value of total assets. *Tobin's Q* is the ratio of the market value of total assets (obtained as the book value of total assets plus the market value of common stock minus the sum of the book value of common stock and balance sheet deferred taxes) to the book value of total assets. *Cash holdings* is the ratio of cash and short-term investments to the book value of total assets. *Leverage* is the ratio of debt (long-term debt plus debt in current liabilities) to the book value of total assets. To mitigate the impact of outliers, all ratios are winsorized at the 1st and 99th percentiles of their empirical distribution.

**State-level controls.** We further control for changes in economic conditions at the state level, thus accounting for the possibility that changes in state UI laws may be driven by changes in the business climate. Specifically, we control for *GDP growth* and *unemployment rate*. The data on state-level GDP growth are obtained from the U.S. Bureau of Economic Analysis. State-level unemployment rates are obtained from the U.S. Bureau of Labor Statistics.

### Summary statistics

Table 1 presents descriptive statistics for the variables used in this article as well as the corresponding correlation matrix. We note the positive correlation between the employee-related KLD index and firm size (46.1%), which underscores the need to control for size in our regressions.

## Methodology

We use panel regression analysis to examine the relationship between UI generosity and

<sup>11</sup> The figure plots the raw data in nominal dollars. Hence, some of this upward trend reflects the secular trend in inflation. Note that inflation adjustments are immaterial for the analysis since all our regressions include year fixed effects (see the methodology section).

<sup>12</sup> Agrawal and Matsa (2013) further characterize changes in UI benefits from 1950 to 2009. In particular, they note that states typically increase their UI benefits by 25–75 percent over a decade, and much larger increases, such as doubling UI benefits, are not uncommon. They further note that large increases are spread out across states and that “[a]t some point, all states experience large changes in UI benefit laws” (p. 454).



employee-related CSR. Specifically, we estimate the following regression:

$$KLD_{ist} = \alpha_i + \tau_t + \beta \times \log(UI\ benefits)_{st-1} + \gamma'X_{ist-1} + \varepsilon_{ist}, \quad (1)$$

where  $i$  indexes firms,  $s$  indexes states, and  $t$  indexes years;  $\alpha_i$  and  $\tau_t$  are firm and year fixed effects, respectively;  $KLD$  is the employee-related KLD index;  $\log(UI\ benefits)$  is the natural logarithm of the UI benefits in the state where the firm is located in the preceding year;  $X$  is the vector of control variables, which includes firm- (size, ROA, Tobin's Q, cash holdings, leverage) and state-level controls (GDP growth, unemployment rate) in the preceding year;  $\varepsilon$  is the error term. Given that the variation in  $\log(UI\ benefits)$  is at the state level, we cluster standard errors at the state level throughout (Bertrand, Duflo, and Mullainathan, 2004).

The firm fixed effects ensure that our estimate of  $\beta$  reflects actual changes in UI benefits and employee-related KLD-index over time instead of simple cross-sectional correlations. The year fixed effects account for economy-wide factors, such as macroeconomic shocks, that could affect both variables. The state-level controls in  $X$  further account for contemporaneous changes in the state's business climate.

A caveat of our analysis is that the firm's state of location in Compustat is the state in which the company's headquarters are located, whereas employees are covered by the UI regime in the state in which they work. Accordingly, if some of the firm's facilities are located in a different state than the firm's headquarters, employees at those facilities are subject to a different UI regime. Such measurement error could attenuate our results. We examine this issue in two ways. First, we follow the approach of Agrawal and Matsa (2013) and exclude industries in which a large percentage of the workforce is likely to be geographically dispersed ("dispersed industries"), namely, retail (NAICS 44–45), wholesale (42), and transport (48). Doing so increases the magnitude of our estimates. Second, we use the data of Garcia and Norli (2012) on the state-level operations of public companies. Specifically, we identify a subset of "geographically concentrated firms," that is, firms with at least 80 percent of their operations in their headquarters' state.<sup>13</sup> Again, we

find that the magnitude of our estimates increases if we restrict the sample to these companies.

## Identification

Our identification strategy relies on the assumption that changes in UI benefits are exogenous with respect to employee-related CSR. In the following, we discuss potential identification concerns and describe how we address them.

### Omitted variables

A potential concern is that omitted variables may drive a spurious relationship between UI policies and companies' investments in employee-related CSR. For example, it could be that state legislators increase UI benefits because the local companies are doing well. At the same time, if the local companies are doing well, they can more easily afford to treat their employees well and hence may invest in employee-related CSR. Or it could be that an increase in prosocial values among a state's citizenry leads to both more generous UI benefits and managers' preference for more investments in employee-related CSR. In both scenarios, omitted variables would be driving our results. Nevertheless, this concern is mitigated for several reasons.

First, we conduct a placebo test. Specifically, we show that changes in UI benefits in neighboring states—which are likely affected by similar regional social and economic conditions—do not affect firms' employee-related CSR. If our results were driven by omitted regional trends, changes in UI benefits in neighboring states would likely show up significantly as well.

Second, in our regressions, we account for changes in the business climate by controlling for GDP growth and the unemployment rate at the state level. In robustness checks, we further expand the set of state-level controls by including proxies for the state's pro-social values (income inequality at the state level and a set of indicator variables for the state's political lean).

Third, we examine the dynamics of the relation between UI benefits and employee-related CSR. We

and Exchange Commission (SEC) every year. Specifically, they conduct a textual analysis of the annual 10-K filings to determine the percentage of the firm's operations in each state. Since their data are from 1994 to 2007, the sample used for that test is restricted accordingly.

<sup>13</sup> The data of Garcia and Norli (2012) are compiled from the 10-K filings that public companies have to file with the Securities

find that changes in employee-related CSR appear only *after* (not before or contemporaneous with) the changes in UI benefits. This finding indicates that the relation is not attributable to the generosity of UI benefits simply responding to changes in social or economic conditions.

Fourth, in auxiliary analyses, we interact UI benefits with various cross-sectional characteristics. For an omitted variable to explain our results, it would have to be correlated with those cross-sectional characteristics for which we find a particularly strong relation (e.g., high product market competition). These analyses are discussed in detail in the results section.

### Lobbying

A related concern is that companies may lobby for changes in UI benefits. In particular, firms that treat their employees well—that is, companies that have increased their employee-related CSR—may be inclined to show support for their employees' well-being in case of unemployment and hence lobby for an increase in UI benefits (or similarly, refrain from lobbying *against* an increase in UI benefits). Under this scenario, our results would be driven by reverse causation. Nevertheless, this concern is mitigated for two reasons. First, as mentioned above, we find that changes in employee-related CSR appear only after (not before) changes in UI benefits, which is inconsistent with reverse causation. Second, we show in robustness checks that our results are similar if we exclude larger firms (i.e., companies whose size is above the median). Arguably, larger firms are better able to influence legislative outcomes.

## RESULTS

### Main results

The main results are presented in Table 2. In Column (1), we regress the employee-related KLD index—denoted by *KLD (emp.)*—on *log(UI benefits)*, firm and year fixed effects. In Column (2), we include firm-level controls. In Column (3), we further include state-level controls. As can be seen, the coefficient on *log(UI benefits)* is very stable across all three specifications. More specifically, it lies between 0.281 and 0.322 and is always statistically significant. This implies that

Table 2. The relationship between UI benefits and employee-related CSR

Dependent variable	KLD (emp.) <sub>t</sub> (1)	KLD (emp.) <sub>t</sub> (2)	KLD (emp.) <sub>t</sub> (3)
Log(UI benefits) <sub>t-1</sub>	0.322** (0.140)	0.311** (0.138)	0.281** (0.131)
a. Firm-level controls			
Size <sub>t-1</sub>		0.142*** (0.022)	0.139*** (0.022)
Return on assets <sub>t-1</sub>		0.076 (0.053)	0.083 (0.052)
Tobin's Q <sub>t-1</sub>		0.011** (0.005)	0.010** (0.005)
Cash holdings <sub>t-1</sub>		0.117 (0.074)	0.106 (0.073)
Leverage <sub>t-1</sub>		-0.038 (0.057)	-0.033 (0.057)
b. State-level controls			
GDP growth <sub>t-1</sub>			0.179 (0.330)
Unemployment rate <sub>t-1</sub>			-0.036*** (0.010)
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R-squared	0.72	0.72	0.72
Observations	29,666	29,666	29,666

Standard errors (in parentheses) are clustered at the state level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% level, respectively.

an increase in UI benefits by 100 log points is associated with an increase in employee-related CSR by about 0.28–0.32 KLD strengths—loosely speaking, companies are implementing an additional 0.28–0.32 employee-related CSR initiatives. This effect may seem small in absolute terms, however it is quite sizable in relative terms—since the average number of employee-related KLD strengths is 0.88 (see Table 1), it implies that companies' employee-related CSR increases by 32–37 percent.<sup>14</sup> This finding is supportive of Hypothesis 1, according to which companies react to more generous UI benefits by increasing their employee-related CSR.

Interestingly, the state-level unemployment rate (which is included as control) is negatively associated with employee-related CSR. Arguably,

<sup>14</sup> The standard deviation of *log(UI benefits)* is 0.33 (see Table 1). Hence, a one-standard deviation increase leads to an increase in the employee-related KLD index by  $0.281 \times 0.33 = 0.09$  to  $0.322 \times 0.33 = 0.11$  strengths, corresponding to a relative increase by 11–12 percent.

low unemployment rates—very much like high UI benefits—make shirking more likely by reducing the expected cost of getting fired (e.g., Shapiro and Stiglitz, 1984). Hence, this finding provides additional support for our arguments.

### Identification and robustness

We estimate several variants of regression (1) to address potential concerns. This analysis is presented in Table 3. In the following, we briefly discuss each of them. The underlying specification (henceforth “baseline specification”) is the one used in Column (3) of Table 2.

#### *Geographic dispersion*

As discussed in the methodology section, employees are covered by the UI regime of the state in which they work, whereas our analysis is based on the state in which the company’s headquarters are located. Such measurement error could attenuate our estimates if companies have operations in multiple states. We address this issue in two ways. First, in Column (1), we follow the approach of Agrawal and Matsa (2013), and exclude industries in which a large percentage of the workforce is likely to be geographically dispersed, namely, retail (NAICS 44–45), wholesale (42), and transport (48). As expected, excluding these industries increases the point estimate to 0.352. Second, in Column (2), we use the data of Garcia and Norli (2012) on the state-level operations of public companies to identify a subset of “geographically concentrated firms,” that is, firms with at least 80 percent of their operations in their headquarters’ state. Again, excluding these firms increases the point estimate to 0.549.

#### *Placebo test*

In Column (3), we conduct a falsification test in which we examine the relation between firms’ employee-related CSR and UI benefits in the neighboring states. Specifically, we re-estimate our baseline specification adding as control  $\log(UI\ benefits)_{border}$ , which is the median of  $\log(UI\ benefits)$  in the firm’s border states. If our results were driven by omitted regional trends—which are likely to be similar across border states—including this control would attenuate the coefficient of  $\log(UI\ benefits)$ . As is shown, the coefficient of  $\log(UI\ benefits)$  is virtually the same with and

without this control. Moreover, the coefficient of  $\log(UI\ benefits)_{border}$  is economically small and statistically insignificant. Hence, our results do not appear to be driven by omitted regional factors.

#### *Extended set of state-level controls*

In Column (4), we further address the issue of omitted regional trends (e.g., a contemporaneous increase in the state’s pro-social values) by expanding the set of state-level controls. Specifically, we (1) control for income inequality (the top 10% income share) at the state level, and (2) add a set of three indicator variables for the state’s political lean (democrat, republican, split). The data on income inequality are obtained from the World Top Incomes Database. The data on states’ political lean are obtained from the National Conference of State Legislatures. As can be seen, the coefficient of  $\log(UI\ benefits)$  is very similar to our baseline estimate.

#### *Dynamics*

In Column (5), we examine the dynamics of the relation between UI benefits and employee-related CSR. If our results are driven by unobserved local trends (e.g., changes in social and economic conditions) that induce legislators to increase UI benefits, then one should expect to observe an “effect” of UI benefits *before* they are even raised. Nevertheless, we find that the inclusion of controls for contemporaneous and forward values of UI benefits—that is,  $\log(UI\ benefits)_t$  and  $\log(UI\ benefits)_{t+1}$ , respectively—does not attenuate the coefficient of  $\log(UI\ benefits)_{t-1}$ . In fact, the coefficients of  $\log(UI\ benefits)_t$  and  $\log(UI\ benefits)_{t+1}$ , are economically small and statistically insignificant. This finding confirms that increases in UI benefits lead to subsequent increases in employee-related CSR—not vice versa (nor contemporaneous)—thus mitigating the possibility of omitted variable bias.

#### *Excluding larger firms*

Changes in UI benefits might be less exogenous for larger firms—arguably, larger firms are better able to influence legislative outcomes (e.g., through lobbying). To ensure that our results are not driven by larger firms, we re-estimate our baseline specification using only the smaller firms in our sample, that is, firms whose size (book value of assets) is below

Table 3. Identification and robustness

Dependent variable	Geographic dispersion		Identification		Alternative specifications		Alternative definition of employee CSR	
	Excluding dispersed industries KLD (emp.) <sub>t</sub> (1)	Geographically concentrated companies KLD (emp.) <sub>t</sub> (2)	Placebo test: neighboring states KLD (emp.) <sub>t</sub> (3)	Extended set of state-level controls KLD (emp.) <sub>t</sub> (4)	Dynamics KLD (emp.) <sub>t</sub> (5)	Accounting for industry trends KLD (emp.) <sub>t</sub> (7)		Median regression KLD (emp.) <sub>t</sub> (8)
Log(UI benefits) <sub>t-1</sub>	0.352*** (0.133)	0.549** (0.252)	0.278** (0.131)	0.332*** (0.133)	0.367** (0.183)	0.424*** (0.120)	0.177*** (0.053)	0.249*** (0.126)
Log(UI benefits) <sub>t</sub>					0.132 (0.134)			
Log(UI benefits) <sub>t+1</sub>					0.007 (0.251)			
Log(UI benefits) <sub>t-1</sub> , border			-0.021 (0.149)					
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Industry-year fixed effects	No	No	No	No	No	Yes	No	No
Regression type	OLS	OLS	OLS	OLS	OLS	OLS	Median	OLS
R-squared	0.73	0.88	0.72	0.72	0.72	0.75		0.72
Observations	26,475	2,388	29,666	29,666	29,666	29,666	29,666	29,666

The sample in Column (1) excludes companies operating in dispersed industries—that is, retail (NAICS 44–45), wholesale (42), and transport (48). The sample in Column (2) consists only of geographically concentrated companies—that is, companies whose operations in their headquarters' state account for at least 80% of their overall operations. The sample in Column (6) excludes larger firms—that is, firms whose book value of assets is above the median. Firm-level controls include size<sub>t-1</sub>, return on assets<sub>t-1</sub>, Tobin's Q<sub>t-1</sub>, cash holdings<sub>t-1</sub>, and leverage<sub>t-1</sub>. State-level controls include GDP growth<sub>t-1</sub> and unemployment rate<sub>t-1</sub>. In Column (4), state-level controls further include income inequality<sub>t-1</sub> and a set of three indicator variables for the state political lean (democrat<sub>t-1</sub>, republican<sub>t-1</sub>, split<sub>t-1</sub>). Standard errors (in parentheses) are clustered at the state level, except in Column (8) where standard errors are block-bootstrapped at the state level using 500 bootstrap samples. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% level, respectively.

the median across all observations in our sample. As is shown in Column (6), our results are robust to excluding larger firms.

#### *Accounting for industry trends*

In Column (7), we include industry-year fixed effects to account for any time-varying industry effects that would affect both companies' employee-related CSR and UI benefits. For example, it could be that labor unions in specific industries lobby for both an increase in UI benefits and, at the same time, pressure companies to improve their employee relations. To rule out such concerns, we re-estimate our baseline specification including industry-year fixed effects (where industries are partitioned according to 2-digit SIC codes). As is shown, the coefficient on  $\log(UI\ benefits)$  is very similar to our baseline estimate.

#### *Outliers*

In Column (8), we address the possibility that our results may be contaminated by outliers. Specifically, we re-estimate our baseline specification using a median regression in lieu of Ordinary Least Squares (OLS). As can be seen, our results are similar to before.<sup>15</sup>

#### *Alternative definition of employee-related CSR*

The core argument of our theory is that firms respond to more generous UI benefits by increasing *relationship-based* incentives and motivators—such as employee-related CSR. That being said, three of the employee-related KLD strengths may include a monetary component: “employee involvement,” “retirement benefits strength,” and “cash profit sharing” (see Appendix S1 for a description of these items). To ensure that our results are not contaminated by the effect of monetary incentives, we construct an alternative employee-related KLD index in which we exclude these three provisions. As is shown in Column (9), our results are robust to this exclusion.

#### *Large increases in UI benefits*

Large increases in UI benefits are not uncommon (see Figure A1 of Appendix S1). We can exploit

<sup>15</sup> Since clustering techniques are not available for median regressions, standard errors in Column (5) are block-bootstrapped at the state level using 500 bootstrap samples.

such discontinuities to build an alternative empirical setup—a difference in differences specification—in which we compare changes in employee-related CSR before and after such large increases. Conducting this analysis yields similar results. We describe this analysis in detail in Appendix S1.

### **Auxiliary analyses**

#### *Components of employee-related CSR*

In our baseline analysis, we construct the employee-related KLD index by summing up all KLD strengths pertaining to (1) employee relations and (2) diversity. This choice is guided by our theoretical arguments, in which we argue that *relationship-based* benefits can serve as an employee governance tool. Indeed, both employee relations (e.g., employee involvement, health and safety policies) and diversity (e.g., advancement opportunities for women and minorities, work-life benefit programs such as childcare, elder care, or flextime) represent relationship-based benefits to employees. That being said, the diversity component may apply to only a subset of the firm's workforce (e.g., women and minorities), and hence may be less relevant as an employee governance tool.

To examine this question, we re-estimate our baseline specification splitting up the employee-related KLD index into the two components. The results are presented in Columns (1) and (2) of Table 4. We find that both increase significantly following an increase in UI benefits, suggesting that both are relevant components of a firm's employee governance.<sup>16</sup>

#### *Other stakeholders*

Our results indicate that companies increase their employee-related CSR following an increase in UI benefits. A related question is whether companies also increase their CSR engagement toward other stakeholders (e.g., consumers, community, and the environment). Arguably, broader CSR programs may further enhance employees' motivation—for

<sup>16</sup> The coefficient of the diversity component is larger in absolute term (0.168 compared to 0.113). However, since the average number of diversity provisions is higher than the average number of employee relation provisions (0.53 compared to 0.35), the relative increase is in fact slightly smaller for the diversity component (31.7% compared to 32.3%).

Table 4. Auxiliary evidence

Dependent variable	Components of KLD (emp.)			Other KLD dimensions			Interaction with cross-sectional characteristics		
	KLD (emp. relations) <sub>t</sub> (1)	KLD (diversity) <sub>t</sub> (2)	KLD (environment) <sub>t</sub> (3)	KLD (consumers) <sub>t</sub> (4)	KLD (community) <sub>t</sub> (5)	KLD (emp.) <sub>t</sub> (6)	KLD (emp.) <sub>t</sub> (7)	KLD (emp.) <sub>t</sub> (8)	
Log(UI benefits) <sub>t-1</sub>	0.113* (0.064)	0.168* (0.087)	-0.032 (0.119)	0.004 (0.029)	0.010 (0.050)	0.221* (0.130)	0.210* (0.126)	0.213* (0.128)	
Log(UI benefits) <sub>t-1</sub> × high labor intensity <sub>t-1</sub>						0.126** (0.055)			
Log(UI benefits) <sub>t-1</sub> × high competition <sub>t-1</sub>							0.147** (0.065)	0.257* (0.132)	
High labor intensity <sub>t-1</sub>						0.212 (0.510)			
High competition <sub>t-1</sub>							-1.346** (0.605)		
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
R-squared	0.53	0.74	0.55	0.51	0.64	0.72	0.72	0.72	
Observations	29,666	29,666	29,666	29,666	29,666	29,666	29,666	29,666	

Firm-level controls include size<sub>t-1</sub>, return on assets<sub>t-1</sub>, Tobin's Q<sub>t-1</sub>, cash holdings<sub>t-1</sub>, and leverage<sub>t-1</sub>. State-level controls include GDP growth<sub>t-1</sub> and unemployment rate<sub>t-1</sub>. Standard errors (in parentheses) are clustered at the state level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% level, respectively.

example, employees may be more engaged when they feel that their employer is a “good citizen” along multiple dimensions.<sup>17</sup>

We examine this question in Columns (3)–(5) of Table 4. Specifically, we re-estimate our baseline specification, replacing the dependent variable with the KLD subindices pertaining to the environment, consumers, and community, respectively. As with our main dependent variable, we add up all KLD strengths pertaining to each particular stakeholder group. As is shown, there is no significant adjustment of other CSR programs. This underscores the relevance of employee-related CSR as an employee governance tool.

#### *Cross-sectional heterogeneity*

In this section, we refine our analysis by interacting  $\log(UI\ benefits)$  with cross-sectional characteristics. Doing so allows us to examine potential mechanisms underlying the relationship between UI benefits and employee-related CSR.<sup>18</sup>

*Labor intensity.* Our findings suggest that CSR serves as a means to motivate employees and prevent them from engaging in adverse behavior. As labor-intensive firms rely more heavily on human capital, they are likely more exposed to employees’ adverse behavior. Accordingly, we expect that employee-related CSR is especially valuable to firms in labor-intensive industries. We examine this mechanism in Column (6) of Table 4 by interacting  $\log(UI\ benefits)$  with a dummy variable indicating whether the company operates in an industry whose labor intensity lies above the median across all industries (*high labor intensity*). Following Agrawal and Matsa (2013), we define labor intensity as the ratio of labor and pension expenses to sales (from Compustat) and compute the average across all companies in the same 2-digit SIC industry. As is shown, we find that the relationship between UI benefits and employee-related CSR is indeed significantly stronger for companies in labor-intensive industries.

<sup>17</sup> On the other hand, companies may have a limited amount of resources available for CSR initiatives. In the latter case, we may expect the increase in employee-related CSR to be accompanied by a decrease in CSR investments related to other stakeholders.

<sup>18</sup> A caveat of this analysis is that we do not have exogenous variation in the cross-sectional characteristics of interest, that is, they may correlate with other variables. Accordingly, albeit informative, the results presented in this section are merely suggestive and do not necessarily warrant a causal interpretation.

*Product market competition.* By nurturing employees’ identification with the firm and aligning their incentives, CSR programs may help improve employees’ motivation and productivity. In particular, in a fierce competitive environment, it is vital for firms to minimize inefficiencies and maintain high labor productivity (e.g., Alchian, 1950; Friedman, 1953; Stigler, 1958). Accordingly, the value of employee-related CSR is likely higher for companies operating in competitive industries. Hence, we expect that the increase in employee-related CSR is stronger for firms in more competitive industries (for a related argument, see Flammer, 2015b). We empirically assess this mechanism in Column (7) of Table 4. Specifically, we re-estimate our baseline specification, interacting  $\log(UI\ benefits)$  with a dummy variable indicating whether the company operates in an industry in which product market competition is above the median across all industries (*high competition*). We measure competition by using the Herfindahl-Hirschman Index (HHI) of industry concentration at the 2-digit SIC level.<sup>19</sup> Consistent with the above argument, we find that the relationship between UI benefits and employee-related CSR is significantly stronger for companies operating in more competitive industries.

*Stakeholder dissatisfaction.* Our arguments suggest that employee-related CSR helps improve employees’ incentives to be productive. Such incentives can be provided by increasing employees’ satisfaction as well as by decreasing their dissatisfaction. The latter is particularly relevant in stigmatized industries that are more likely to be associated with stakeholder dissatisfaction, such as “dirty” industries. We examine this mechanism in Column (8) of Table 4, where we interact  $\log(UI\ benefits)$  with a dummy variable indicating whether the company operates in a high-polluting industry (*high pollution*). To identify high-polluting industries, we use the classification of the U.S. Environmental Protection Agency (EPA), which identifies seven industry sectors that account for 92 percent of all disposal and other releases of TRI (toxic release inventory) chemicals (EPA, 2013, p. 17).<sup>20</sup> Consistent with

<sup>19</sup> HHI is defined as the sum of the squared market shares of all companies in the same industry. We compute market shares using sales data from Compustat. Note that HHI is a measure of concentration, and hence an inverse measure of competition.

<sup>20</sup> The seven sectors are metal mining (NAICS 212), electric utilities (2211), chemicals (325), primary metals (331), paper

the above argument, we find that the relationship between UI benefits and employee-related CSR is significantly stronger for companies operating in high-polluting industries.

## DISCUSSION AND CONCLUSION

This study examines whether companies employ corporate social responsibility (CSR) as an employee governance tool to improve employee engagement and mitigate adverse behavior at the workplace. Specifically, we exploit plausibly exogenous changes in state unemployment insurance (UI) benefits, and examine how they affect employee-related CSR policies of U.S. firms from 1991 to 2013. Higher UI benefits reduce the cost of being unemployed and hence increase employees' incentives to engage in adverse behavior. Similarly, more generous UI benefits increase the attractiveness of alternative options—as those may involve a spell of unemployment—and hence, may reduce employees' motivation and dedication toward their current employment.

We find that higher UI benefits are associated with higher engagement in employee-related CSR, consistent with the argument that companies use employee-related CSR as an employee governance tool to increase employee engagement and counter the possibility of adverse behavior. In auxiliary analyses, we further document that the increase in employee-related CSR is larger for companies operating in industries that are more labor-intensive, more competitive, and subject to higher levels of stakeholder dissatisfaction. These findings suggest that companies increase their CSR in order to (1) improve employees' productivity, (2) differentiate themselves from their competitors, and (3) decrease employees' dissatisfaction associated with firms' stigmatized image.

This study contributes to our understanding of employees' adverse behavior and employee relations in at least five ways. First, it contributes to the literature on employee governance by identifying a management practice—increasing employee-related CSR—that does not rely on monetary incentives. Unlike relationship-based tools,

(322), food, beverages, and tobacco (311 and 312), and hazardous waste management (5622 and 5629). Note that *high pollution* is a fixed industry characteristic. Hence, we cannot include it as stand alone in the regression (since it is absorbed by the firm fixed effects).

monetary incentives have been widely studied in the literature. In their surveys of this literature, Akerlof and Kranton (2005), Gibbons (1998), and Prendergast (1999) emphasize the various pitfalls of monetary incentives and the need to go beyond them.<sup>21</sup>

Second, we contribute to the growing literature that examines the microfoundations of companies' competitive advantage. Specifically, by studying the relation between a firm's CSR investments and employees' adverse behavior, we echo the recent call to study CSR in the fields of human resource management and organizational behavior (Morgenson *et al.*, 2013), and add to the few but notable studies that examine how employee-friendly practices improve the financial performance of firms (e.g., Bloom, Kretschmer, and Van Reenen, 2010; Edmans, 2011, 2012). Relatedly, our study adds to the literature on CSR. While a large literature points at a positive relationship between CSR and financial performance, it has been difficult to document tangible benefits associated with CSR programs (for a review, see Margolis, Elfenbein, and Walsh, 2007). Instead, an emerging literature tries to comprehend the internal and external drivers of CSR activities. In particular, this literature examines the role of various stakeholders in shaping firms' CSR investments, including regulatory institutions (e.g., Fabrizio, 2012; Toffel, Short, and Ouellet, 2013), the community (e.g., Tilcsik and Marquis, 2013), activists (e.g., Baron, 2009; Baron and Diermeier, 2007; McDonnell and King, 2013; Zhang and Luo, 2013), the media (e.g., Luo, Meier, and Oberholzer-Gee, 2013), and shareholders (e.g., Flammer, 2013, 2015a). This article focuses on employees—one set of internal stakeholders and arguably the firms' most valuable asset—and asks the question of how employees drive firm-level CSR activities and, in particular, whether firms use CSR as a strategic lever to mitigate problems of employee engagement and adverse behavior at the workplace.

Third, our article is related to the literature that studies how CSR can help attract and retain employees. This is a potentially important role of

<sup>21</sup> Relatedly, a growing literature starting with Aghion and Tirole (1997) emphasizes the pitfalls of monitoring. For example, improved monitoring may be counterproductive in an innovative environment as the lack of discretion may negatively affect managers' strategic decision making (Chenmanur and Tian, 2013; He and Wang, 2009) and employees' creativity (e.g., Azoulay, Graff Zivin, and Manso, 2011). As such, incentives and motivators may be the more suitable mechanisms in an innovative environment.



CSR—economists often argue that *sorting* is at least as important as motivating employees (e.g., Lazear and Oyer, 2012). In particular, Burbano (2014), and Frank and Smith (2015) show that employees are willing to accept lower wages in order to work for socially responsible firms. Similarly, CSR can positively influence employees' decision to stay with the company despite experiencing a tragic event (Carnahan, Kryscynski, and Olson, 2015) or a pay cut (Bode, Singh, and Rogan, 2015). Moreover, Burbano, Mamer, and Snyder (2013) suggest that, by offering pro bono work opportunities to their junior associates, law firms can observe their talent and ultimately promote the most talented ones. While related, our study focuses on the motivational aspect of CSR as an employee governance tool.

Fourth, our study expands the literature on strategic human capital and corporate governance. The former focuses on high-skilled employees as a source of competitive advantage and the risk of job mobility (e.g., Campbell, Coff, and Kryscynski, 2012a; Campbell *et al.*, 2012b; Carnahan, Agarwal, and Campbell, 2012; Coff and Kryscynski, 2011; Ganco, Ziedonis, and Agarwal, 2015; Mayer, Somaya, and Williamson, 2012; Wang *et al.*, 2009). The latter is concerned about mitigating adverse behavior of directors and managers (e.g., Bertrand and Mullainathan, 2003). Our study contributes to these two lines of research by offering a distinct perspective: We explore whether companies use CSR as a strategic management tool to alleviate the potential adverse behavior of *all* employees (i.e., regardless of their skill and rank within the company).

Fifth, to the best of our knowledge, our article is the first that examines the relationship between UI benefits and companies' engagement in CSR. UI is one of the largest social insurance programs in the United States (Nicholson and Needels, 2006). A large literature has focused on the impact of such programs on unemployment duration and their social welfare implications (e.g., Chetty, 2008; Meyer, 1990, 1995). Much less is known about the effect of UI programs on the *employed*. Thus, our findings that firms increase employee-related CSR following large increases in UI benefits have potentially important policy and welfare implications.

In addition, our findings have several managerial implications. First, the relationship between higher UI benefits and higher employee-related CSR suggests that CSR helps companies motivate and engage their employees. Hence, companies dealing

with employees that are unmotivated, regularly absent, or engage in other forms of adverse behavior, may find it worthwhile to design and implement effective CSR practices. Second, our findings suggest that CSR can be used as an employee governance tool, and hence may be more core to corporate strategy than often thought. Accordingly, managers could benefit from integrating CSR considerations into their strategic planning.

Finally, our study calls for future research. In particular, an important question is whether employee-related CSR programs achieve their intended goals in terms of performance. Likewise, understanding and comparing the effect of UI benefits on other firm-level decisions (e.g., hiring full- versus part-time employees) merits further inquiry. Making ground on these questions is a promising avenue for future work.

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## SUPPORTING INFORMATION

**Additional supporting information may be found in the online version of this article:**

Appendix S1. Online Appendix

## ONLINE APPENDIX

### Employee-related KLD strengths

The employee-related KLD-index includes KLD strengths pertaining to employee relations and diversity. It consists of the following strengths (see KLD, 2010).<sup>1</sup>

#### *Employee relations*

- *Union relations.* The company has taken exceptional steps to treat its unionized workforce fairly.
- *Cash profit sharing.* The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce.
- *Employee involvement.* The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees; gain sharing, stock ownership, sharing of financial information, or participation in management decision-making.
- *Retirement benefits strength.* The company has a notably strong retirement benefits program.
- *Health and safety strength.* The company has strong health and safety programs.
- *Other strength.* The company has strong employee relations initiatives not covered by other KLD ratings.

#### *Diversity*

- *CEO.* The company's chief executive officer is a woman or a member of a minority group.
- *Promotion.* The company has made notable progress in the promotion of women and minorities, particularly to line positions with profit-and-loss responsibilities in the corporation.
- *Board of directors.* Women, minorities, and/or the disabled hold four seats or more (with no double counting) on the board of directors, or one-third or more of the board seats if the board numbers less than 12.
- *Work/life benefits.* The company has outstanding employee benefits or other programs addressing work/life concerns, e.g., childcare, elder care, or flextime.
- *Women & minority contracting.* The company does at least 5% of its subcontracting, or otherwise has a demonstrably strong record on purchasing or contracting, with women-and/or minority-owned businesses.
- *Employment of the disabled.* The company has implemented innovative hiring programs; other innovative human resource programs for the disabled, or otherwise has a superior reputation as an employer of the disabled.
- *Gay & lesbian policies.* The company has implemented notably progressive policies toward its gay and lesbian employees. In particular, it provides benefits to the domestic partners of its employees.
- *Other strength.* The company has made a notable commitment to diversity that is not covered by other KLD ratings.

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<sup>1</sup> KLD also collected data on companies' 'no-layoff policies' between 1991 and 1993. Due to the limited coverage, this provision is not included in the computation of the composite employee-related KLD-index.

## Analysis of large changes in UI benefits

As can be seen from Figure A1, large increases in UI benefits are not uncommon. For example, UI benefits in Massachusetts increase in a somewhat continuous fashion over the years, except in 2001 when there is a sharp increase. We can exploit such discontinuities to build an alternative empirical setup in which we compare changes in employee-related CSR before and after such large increases. A disadvantage of this approach is that it discards valuable information on the ‘dosage’ of the changes in UI benefits. An advantage is that it can be set up as a plain-vanilla difference-in-differences with a treatment dummy and a traditional treatment and control group.<sup>2</sup> We conduct this robustness analysis in Table A1, defining an increase in UI benefits as ‘large’ (i.e., a ‘treatment’) if it is at least five times greater than the average annual change in the same state across all years. The specification is the same as in equation (1) except that we replace  $\log(UI\ benefits)_{st}$  with a dummy variable—the treatment dummy, denoted by *large increase in UI benefits*<sub>st</sub>—which is equal to one in the years following the treatment. As is shown in column (1), the coefficient on the treatment dummy is positive and significant, which is consistent with our results in Table 2.<sup>3</sup>

In column (2), we exploit the discrete nature of the treatments to examine the dynamic effect of large increases in UI benefits. Specifically, we replace the treatment dummy with a set of four dummies indicating whether the observation is recorded in the year preceding (–1), the year of (0), one year after (1), and two or more years after (2+) the treatment, respectively. As is shown, there is virtually no effect in the year prior to the treatment, which confirms that there is

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<sup>2</sup> We caution that large increases in UI benefits are not random (see the methodology section). In this vein, the ‘treatment/control’ terminology is used for ease of exposition, and is not meant to refer to a randomized treatment.

<sup>3</sup> A complication is that some states are treated multiple times (e.g., Michigan). To deal with multiple treatments, we consider the first treatment as the ‘relevant’ treatment, mindful that repeated treatments (or treatment reversals) complicate the inference of the long-term effect of the treatments (e.g., 2+ years after the treatment). The list of treatments is as follows: DC 1992, MI 1992, MS 1992, FL 1994, WA 1994, DE 1996, AK 1997, LA 1998, MO 1998, NY 1999, MN 2000, KY 2001, MA 2001, UT 2001, VA 2001, CA 2002, NM 2004, AZ 2005, TN 2011.

no pre-existing trend. There is also no significant effect in the year of the treatment. It is only in the first year after the treatment that the effect becomes significant, and it remains somewhat stable thereafter. In Figure A2, we further plot the evolution of the employee-related KLD-index in the treatment and control groups and find a very similar pattern.

In column (3), we conduct a placebo test in which we randomize the treatment years for the 19 treated states.<sup>4</sup> In column (4), we run a variant of this placebo test in which we further randomize the treated states (i.e., we replace the 19 actual treatments by 19 random state-year combinations). As can be seen, the ‘effect’ of these placebo treatments is small and insignificant in both columns. Finally, in column (5), we use the treated states’ neighboring states as placebo states. We break ties among neighbor states by taking the state whose GDP growth is closest to the treated state (in the pre-treatment year). Again, we find no effect of such placebo treatments.

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<sup>4</sup> We generate 500 sets of randomly assigned treatment years and re-estimate the regression for each of them. The coefficients (and standard errors) provided in the table are averages across all 500 regressions.



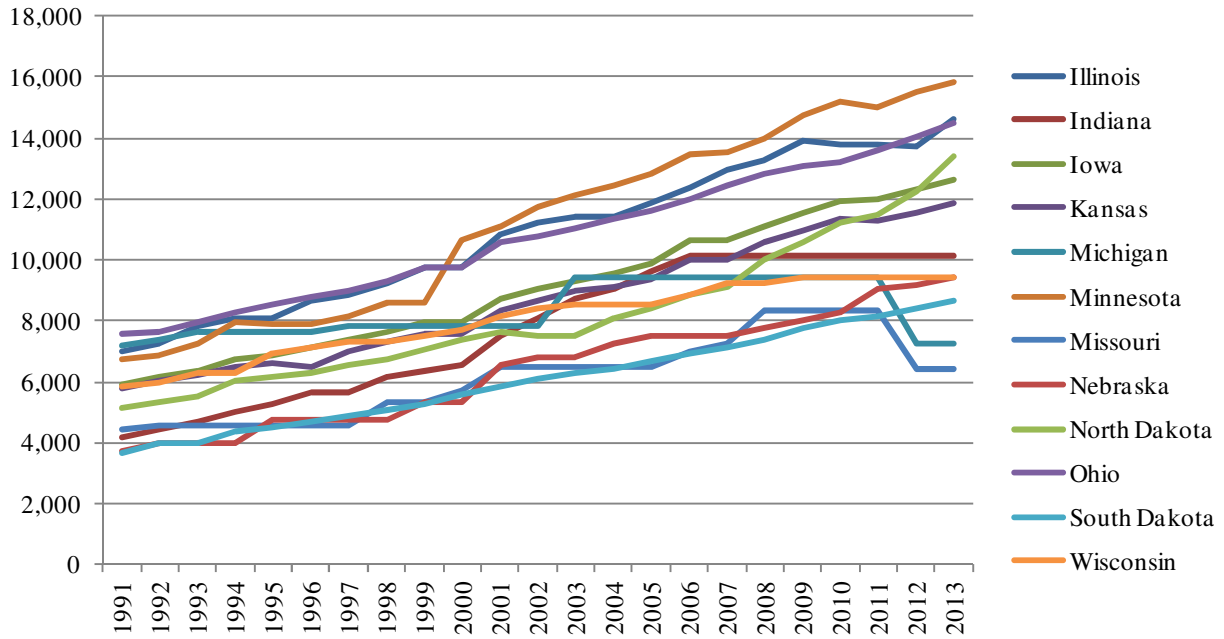
**Table A1. Large increases in UI benefits**

Dependent variable:	KLD (emp.)	KLD (emp.)	Placebo tests		
			KLD (emp.)	KLD (emp.)	KLD (emp.)
			Placebo treatments (random treatment years)	Placebo treatments (random treatments)	Placebo treatments (neighboring states)
	(1)	(2)	(3)	(4)	(5)
Large increase in UI benefits	0.159*** (0.059)				
Large increase in UI benefits (-1)		0.060 (0.064)			
Large increase in UI benefits (0)		0.099 (0.067)			
Large increase in UI benefits (1)		0.151** (0.071)			
Large increase in UI benefits (2+)		0.210*** (0.070)			
Large increase in UI benefits (placebo)			0.038 (0.064)	0.029 (0.073)	0.022 (0.056)
Firm-level controls	Yes	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.72	0.72	0.72	0.72	0.72
Observations	29,666	29,666	29,666	29,666	29,666

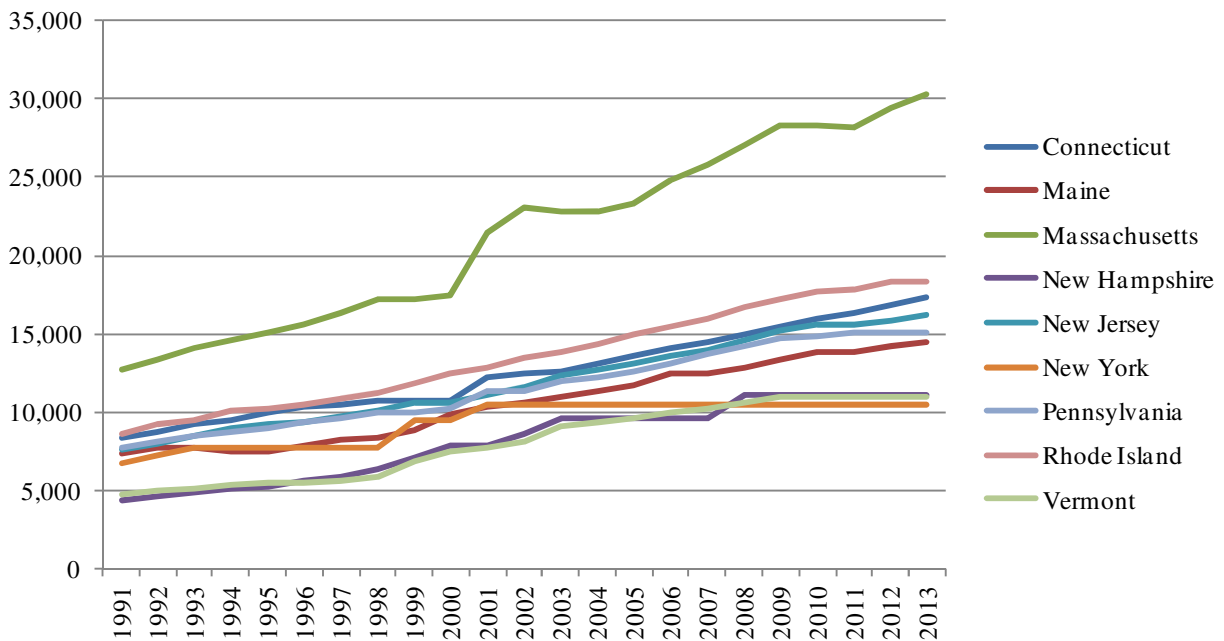
Notes. Firm-level controls include  $size_{t-1}$ , return on assets $_{t-1}$ , Tobin's  $Q_{t-1}$ , cash holdings $_{t-1}$ , and leverage $_{t-1}$ . State-level controls include GDP growth $_{t-1}$  and unemployment rate $_{t-1}$ . The coefficients and standard errors in columns (3) and (4) are averages across 500 regressions. Each of these regressions is estimated using randomized treatment years (column (3)) and randomized treatments (column (4)), respectively. Standard errors (in parentheses) are clustered at the state level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% level, respectively.

**Figure A1. Evolution of UI benefits**

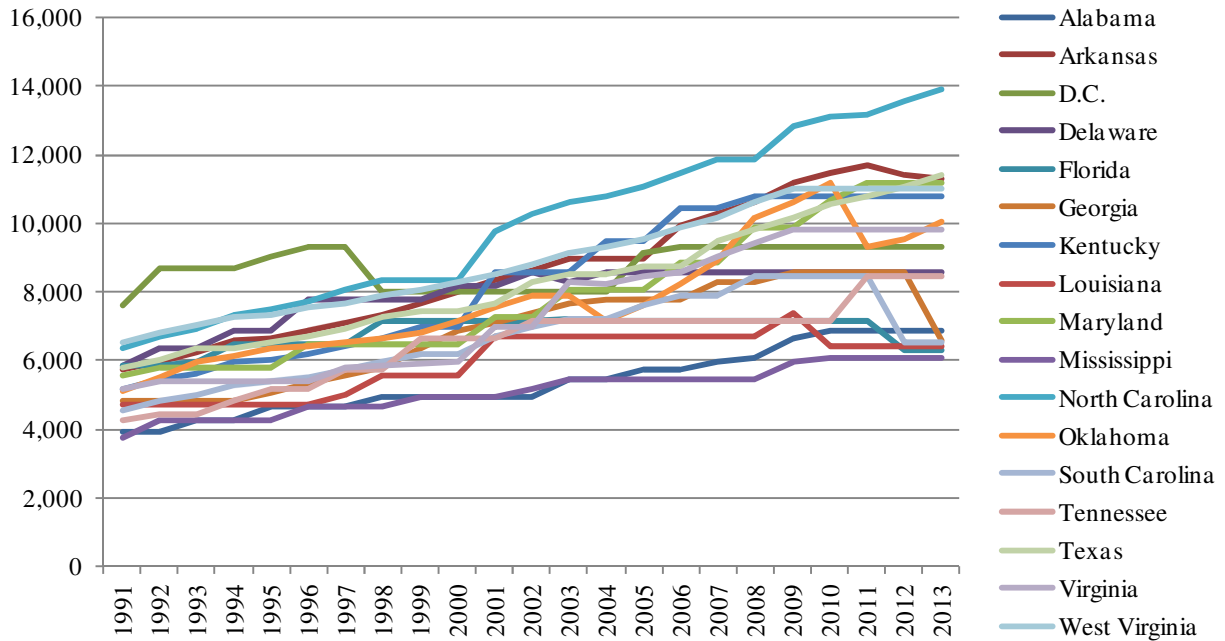
Notes. This figure presents the evolution of UI benefits by state. The vertical axis indicates UI benefits (in dollars). The horizontal axis indicates year. States are classified according to the four Census regions (Midwest, Northeast, South, and West).



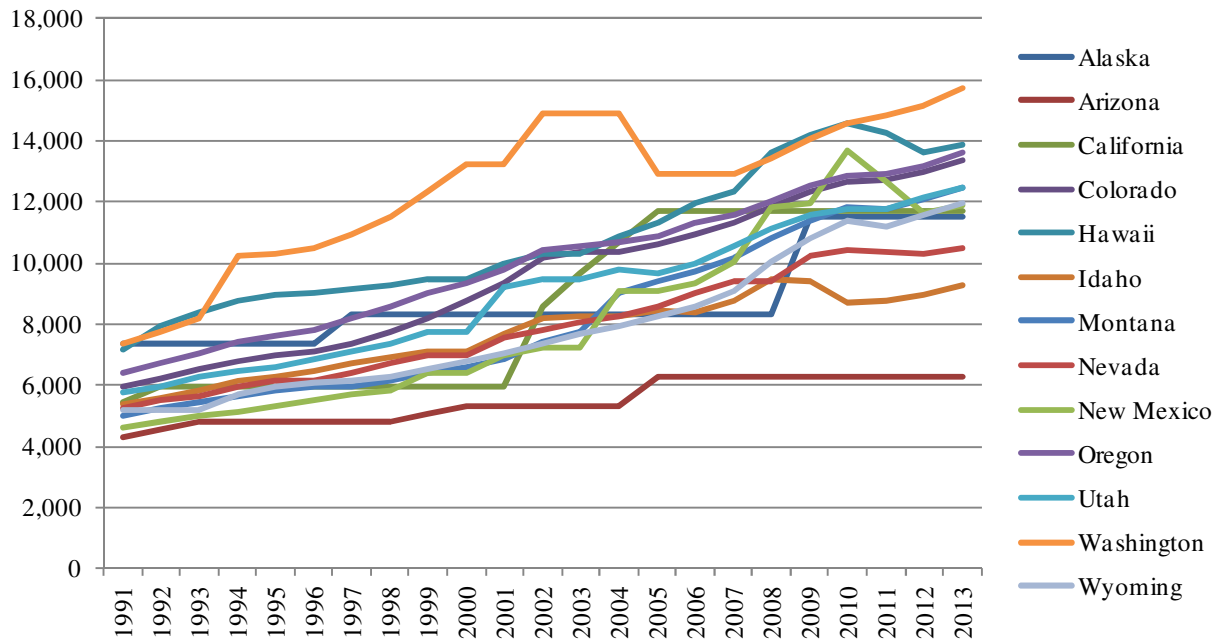
*Panel (A): Midwest*



*Panel (B): Northeast*



Panel (C): South



Panel (D): West

**Figure A2. Employee-related KLD-index around large increases in UI benefits**

Notes. The vertical axis plots the average employee-related KLD-index across all firms in the treatment and control groups, respectively. ‘Treatments’ refer to the large increases in UI benefits described in the robustness section. The horizontal axis plots the years relative to the treatment (‘year 0’ refers to the year in which a large increase in UI benefits occurs, ‘year 1’ is the year after the large increase in UI benefits, etc.).

