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Labor-Friendly Corporate Practices: Is What is Good for Employees Good for Shareholders?

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ABSTRACT. As corporate managers interact with non-shareholder stakeholders, potential tradeoffs emerge and questions arise as to how these interactions impact shareholder value. We argue that this shareholder–stakeholder debate is an important issue within the overall corporate governance and corporate policy domain and examine one such stakeholder group – employees – by studying labor-friendly corporate practices. We find that announcements of labor-friendly policies are associated with positive abnormal stock returns. Labor-friendly firms also outperform otherwise similar firms, both in terms of long-run stock market returns and operating results. In addition, we find that the probability and benefits of labor-friendliness increase with the demand for highly skilled labor. Our analysis of excess executive compensation suggests that top management derives no pecuniary benefits from labor-friendly practices. We interpret our results as consistent with a genuine concern for employees translating into higher productivity and profitability, which in turn facilitate value creation. It appears that the benefits of labor-friendly practices significantly outweigh the costs and that what is good for employees is good for shareholders.

KEY WORDS: corporate social responsibility, employee stakeholders, stakeholder theory, agency theory

Introduction

During 1996, First Tennessee National Corp., Tennessee's largest bank and a member of the S&P 500 index, formally declared that employees come first, followed by customers, and then shareholders.[1] The company instituted a wide array of employee-friendly programs, including childcare subsidies, a sick-child center, health and fitness programs, and resources for all kinds of family issues.[2] Over the next 8 years, First Tennessee spent an average of $67,000 in annual labor costs per employee, compared to mean and median values of $50,000 and $45,000 for other national commercial banks, and its average labor expenses ranked above the 90th percentile of employee compensation in the industry. Ron Rector, a senior vice president at First Tennessee, summarized that the bank considers a labor-friendly culture ''the foundation of its profit chain, from which employee productivity and retention follow.''[2] From the standpoint of strategic financial management and corporate value maximization, policies such as this raise the question of whether what is good for employees (or other stakeholders) is also good for shareholders.

Stakeholder theory suggests that the relation between corporations and their stakeholders is an important issue in corporate governance and strategic management because such relations can have significant effects on a company's ability to create value.[3] We focus on one key stakeholder class – employees, and examine labor-friendly practices as a potential means of fostering value maximization. We define labor-friendly practices as those that involve the devotion of significant resources (financial and otherwise) to enhancing employee welfare and helping them balance their home and work lives.

As suggested by Ron Rector of First Tennessee in the above quote, the basic argument in favor of these programs is their potential to stimulate workforce loyalty and foster lower absenteeism, reduced turnover, better productivity, and, ultimately, improved profitability and higher market valuation. Yet, labor-friendly programs are not without their possible downsides. First, as illustrated in the opening para-

graph, these programs can be quite costly, thereby resulting in inferior financial performance unless productivity and other gains outweigh their costs. Second, labor-friendly programs can create a sense of entitlement among workers, which reduces the company's operating flexibility and ability to adapt quickly to changing market conditions. Finally, agency theory suggests that management can pursue labor-friendly programs to further its self-interest, for example, by using these programs as a *quid pro quo*, in which labor turns a blind eye to managerial excesses in return for above-market wages and cozy benefits.[4] Similarly, Cennamo et al. (2009) show that executives can incorporate stakeholder expectations into corporate decision-making as a means of enlarging their own power because doing so increases managerial discretion.

We study these issues using two distinct samples, each with offsetting strengths and limitations. Our primary sample consists of firms chosen by *Fortune* magazine as the "Best 100 Companies to Work for in America" (Best Companies) between 1998 and 2005. Our second sample consists of firms in the KLD Research & Analytics' SOCRATES database. This database covers about 650 firms, consisting of all members of the S&P 500 index and those non-S&P 500 firms belonging to the Domini 400 Social index created by KLD.

We begin with an event study analysis of the stock price reaction to the announcement of the *Fortune* list. We find a statistically significant average abnormal return of 1.03%, suggesting that the market views investments in labor-friendly programs as beneficial. We rule out price pressure as a potential explanation for this result, since we find significantly positive long-run buy-and-hold abnormal returns (BHAR) relative to a portfolio of matched firms. Next, we examine several dimensions of operating performance: employee productivity, firm-level total productivity, profitability, and firm value. Consistent with the event study results, we find that the Best Companies outperform comparable firms on all measures. These results are highly robust.

We obtain similar results using the KLD sample. Specifically, we find a positive relation between our aggregate measure of labor-friendliness and employee productivity, total factor productivity, and firm value. Further analysis shows that beneficial policies in themselves tend to enhance employee productivity and firm value while potentially adversarial labor practices only exert a very mild negative impact. Thus, the overall effect of labor-friendliness appears attributable to firms actively engaging in beneficial practices rather than merely avoiding potentially adversarial policies.

Next, we consider the question of why firms engage in labor-friendly practices by focusing on how the demand for highly skilled human capital affects the likelihood and benefits of labor-friendliness. In a rational choice regime, we expect firms whose success depends more on the quality of human capital to be more likely to adopt labor-friendly policies both to attract and retain high-quality employees and encourage them to invest in firm-specific human capital. Consistent with this, we find a positive relation between the likelihood of labor-friendliness and R&D intensity, which we employ as a proxy for dependence on highly skilled human capital. We also find that the performance benefits of labor-friendliness accrue largely to R&D-intensive firms.

Finally, we examine possible managerial self-interest motives for adopting labor-friendly policies by analyzing excess executive compensation. Using several measures of compensation, we find no significant differences in excess compensation between CEOs of labor-friendly firms and those at comparable firms.

We interpret our results as consistent with rational choice, noting that the benefits of devoting significant resources to employee welfare appear to outweigh the costs and that this is more so when the demand for highly skilled employees is greater. In this sense, we extend the literature on the valuation effects of a significant consideration of non-shareholder constituencies. Fisman et al. (2005) analyze community stakeholders and find that socially responsible behavior is more positively related to profitability in consumer-oriented and competitive industries. Dowell et al. (2000) show that firms adopting a stringent environmental standard have significantly higher valuation than firms adopting less stringent standards. Our results suggest similar effects for the devotion of sizeable resources to employee welfare while identifying the context within which such practices are most valuable.

A primary limitation of our study is that we focus on one stakeholder group. Thus, our results do not

necessarily generalize to other stakeholders. This is especially so since employees are unique stakeholders in the sense that they are intimately involved with the company's operations on a daily basis. Results for other stakeholders not so involved with the company can conceivably differ from what we report here. We discuss other limitations and suggestions for future research in the article's conclusion.

Background and related studies

A basic tenet of American capitalism is that corporations are supposed to be run in their shareholders' best interest, with management choosing policy variables to maximize firm value.[5] Shareholder wealth maximization is also widely accepted in the finance and economics literature, where it is presumed that, given reasonable assumptions, maximizing shareholder value is consistent with maximizing the long-run value of the firm and the welfare of society. For example, Jensen (2001) argues that "[t]wo hundred years of work in economics and finance implies that in the absence of externalities and monopoly (and when all goods are priced), social welfare is maximized when each firm in an economy maximizes its total market value."

Some, particularly outside of finance, do not agree with the consistency between maximizing the current stock price and long-run firm value. Donaldson and Preston (1995, p. 68) argue that the assumption that the organizational objective is solely to produce benefits to investors "now seems to be confined almost exclusively to the field of finance." A 2007 *Business Week* article argues that the notion that management's primary obligation is to maximize shareholder value is a key reason why talented managers fail to innovate because shareholder value maximization leads managers to focus on quarterly results and to forgo investments in promising innovations that will hurt short-term financial performance.[6] Focusing on the objective of shareholder value maximization leads to similar questions relating to the treatment of other stakeholders. As management interacts with these stakeholders, questions arise about the implications of these relations for shareholders and how tradeoffs are assessed.

Donaldson and Preston (1995) and Agle et al. (2008) provide comprehensive reviews of the many facets of stakeholder theory. Donaldson and Preston (1995) note that the hypothesis that corporations adopting stakeholder practices will perform better for shareholders than those not adopting such practices has not been thoroughly tested. Reynolds et al. (2006) argue that stakeholder theory is widely recognized as a management theory, but that there is not much research considering its implications for individual decision makers. Berrone et al. (2007) argue that knowledge of the linkages between a firm's ethical stance and its performance is limited. They note that from a theoretical perspective, the effects of ethics and corporate social responsibility (CSR) on firm performance is uncertain. Preston and Sapienza (1990) find that the satisfaction of multiple stakeholders is not necessarily a zero-sum game and that benefits to one stakeholder group do not necessarily come at the expense of another. Hosmer (1994) and Jones (1995) argue that good ethics is consistent with shareholder value due to positive externalities, while Friedman (1970), Schwab (1996), and Jensen (2001) are more skeptical. Ruf et al. (2001) find some support for the tenet that shareholders benefit when management meets the demand of multiple stakeholders. Bird et al. (2007) summarize a number of papers examining the reasons for why there is little closure on the direction of the relation between CSR and corporate performance. Reasons include lack of a strong conceptual foundation, lack of appropriate measures of CSR, lack of a large enough sample, and lack of methodological rigor. See also, Moore (2001), Ruf et al. (2001), and Cennamo et al. (2009) for discussions of stakeholder theory and corporate performance.

The foregoing suggests that there is a need for more empirical analysis of the relation between stakeholder treatment and firm performance. Jensen (2001, 2002) argues that a firm cannot maximize value if it ignores the interest of its stakeholders, but that value maximization requires management to direct an extra dollar toward stakeholders when doing so generates present value benefits in excess of the costs. Consistent with this thought, much prior work has considered if devoting significant corporate resources to satisfying various stakeholders affect firm performance. Griffin and Mahon (1997) provide a comprehensive review. More recently, Fisman et al. (2005) report differential performance effects for community-focused CSR, depending on industry

characteristics. They find that the impact of socially responsible behavior on firm value and profitability increases in the level of industry competition. Statman (2000) and Geczy et al. (2003) evaluate the performance of mutual funds that invest in socially responsible firms. They find that these funds generally perform no worse than comparable funds.

Employees are perhaps the most important value-relevant stakeholders, since they are the ones who must execute the firm's strategies for creating value. Aoki (1984) argues that shareholders and employees are the two main stakeholders and that managers serve as referees between the two. A crucial issue then is how to align labor's interest with shareholder value maximization.[7] In this article, we focus on labor-friendly policies and programs as a potential tool for fostering the convergence of labor and shareholder interests. There are several reasons to expect this convergence. First, labor-friendly practices can create a strong bond of loyalty to the company. Social exchange theory and the norm of reciprocity (Blau, 1964; Eisenberger et al., 1986) suggest that employees interpret their organization's actions and practices as a reflection of its commitment to them, which they then reciprocate in their loyalty and commitment to the firm. Bridges and Harrison (2003) show that employee-focused perceptions (as measured by monetary and non-monetary benefits as well as services devoted to employees) are positively associated with employee commitment; while Whitener (2001) shows that employee perception of organizational support is positively related to their commitment to the firm.

Gellatly (1995, p. 470) argues that committed employees would exhibit lower absenteeism rates because they are motivated "to engage, become involved, and identify with their work." He also shows an inverse relation between employee commitment and absence frequency and total days absent. Similarly, Somers (1995) reports a negative association between employee commitment and voluntary turnover. Since absenteeism and turnover are costly, lower rates can facilitate improved productivity and firm performance, thus suggesting a positive impact for employee-friendly programs. Furthermore, Batt (2002) finds that employee attrition is lower and sales growth higher at firms that engage in a variety of employee-friendly practices, while Gelade and Ivery (2003) find a positive relation between work climate and a variety of employee productivity measures.

Besides its effects on current employees, a demonstrated commitment to employee welfare can help a company to attract and retain better employees as well as encourage them to invest in firm-specific human capital. These practices also can create positive community goodwill for the company, which can in turn help improve its competitiveness and performance (Berrone et al., 2007).

Despite these potential benefits, labor-friendly practices can have detrimental consequences. For instance, investments in labor-friendly programs are costly and can exceed potential productivity and other gains. In addition, such programs can create a sense of entitlement among employees, thereby failing to motivate increased productivity while constraining management's flexibility to respond to changing market conditions.

Eisenhardt (1989) argues that agency theory is a useful addition to organizational theory, and that it is reasonable to adopt agency theory when investigating problems that have a principal-agent framework.[8] Agency theory suggests that management can use labor-friendly practices to further its own objectives at the expense of shareholders. In particular, labor-friendly policies can create an entrenched, management-friendly workforce that ignores managerial excesses and supports the incumbent in takeovers and other corporate control situations. Hellwig (2000) argues of a "natural alliance" between managers and workers against takeovers and proxy contests, while Pagano and Volpin (2005) discuss a model in which management transforms workers into a shark repellant through generous long-term labor contracts and employees team up with management to resist hostile takeovers for the purpose of protecting their high wages. Cennamo et al. (2009) show that managers can use stakeholder considerations as a means of increasing their power over the corporation and the disposition of its resources. Furthermore, labor-friendly management can extract excessive compensation from the firm since employees may be less inclined to protest excessive executive pay and perk consumption when management is generous to ordinary employees.[9]

Our objective is to test these competing effects to better understand if, and under what circumstances, shareholders benefit from labor-friendly programs in

particular and stakeholder considerations in general. It is possible that these programs have a positive, a negative, or no effect on shareholder returns, productivity, return on capital, and firm value. A better understanding of these relationships fills a gap in the corporate policy, governance, and social responsibility literatures. The topic is also timely, given the current environment of major cost cutbacks and concerns about corporate sustainability.

At least two prior studies, which empirically investigate the relation between the treatment of employee stakeholders and corporate performance, are related to our study. Filbeck and Preece (2003) study firms on the 1998 *Fortune* list and report positive abnormal returns associated with being named to the list and higher buy-and-hold returns before and shortly after publication of the 1998 list. Bird et al. (2007) study employee strengths and concerns in the KLD database. They find some positive relation between employee strengths and future stock returns and market-to-book ratio. Our study differs significantly from these in many respects. First, while they both focus on stock market returns, we also analyze operating performance, providing evidence for several measures of productivity, profitability, and value creation. This permits an understanding of the sources of the documented improvements in stock market performance. In addition, we consider the important question of how individual firm characteristics determine the likelihood of labor-friendliness and affect the relation between performance and labor-friendliness. We also study potential managerial self-interest motives in corporate labor policies. Furthermore, compared to Filbeck and Preece (2003), our analysis of the KLD sample allows us to examine the effects of different dimensions of labor-friendliness on corporate performance and market valuation. We believe that these are significant issues that enhance our understanding of the role of labor-friendly corporate policies and practices.

Sample and data

The Fortune sample

Each January since 1998, *Fortune* magazine publishes its list of the "100 Best Companies to Work for in America." *Fortune* selects these companies on the basis of employee responses to an anonymous survey that evaluates trust in management, pride in work and/or company, and camaraderie, as well as company responses to the 29-page Hewitt People Practices Inventory and additional corporate materials, including employee benefits booklets, company newsletters, and videos.[10] Between 1998 and 2005, 248 unique companies appeared on this list. Of these, 131 are public firms with data available in the Compustat and Center for Research in Security Prices (CRSP) databases. They constitute our *Fortune* sample.

These companies devote significant financial and non-financial resources to creating a worker-friendly environment and helping employees balance their home and work lives. For example, of the 58 publicly traded companies on the 2000 list, 31 offer on-site university courses and 53 reimburse tuition, with MBNA topping the list at up to $15,600 a year. Among firms on the 2002 list, AFLAC has two on-site childcare centers serving 540 children, while Genentech provides on-campus bicycles, a rental library of audio books, an on-site hair salon, free espresso, and weekly social gatherings. Stratus Technologies offers on-site mammograms and skin-cancer testing as well as a concierge service that makes employee dinner reservations. At Synovus Financial, supervisors meet with their subordinates at least three times a year to discuss their career development. In addition, management appears to succeed in fostering employee trust. At SRA International, 96% of employees say management trusts them to do a good job, while 97% of Edward Jones employees say management is honest.[11]

We present descriptive information for the sample in Table I. Panel A displays industry distribution, showing that virtually all broad industry groups are represented in the sample. The most common broad industry group is manufacturing, which accounts for 49.6% of the sample and includes firms such as Amgen, Hewlett-Packard, Texas Instruments, and Medtronic. Other common industries are financial services (16.0%, including JP Morgan, First Horizon, Capital One, and SEI Investments) and business services (17.5%, including American Management Systems, IBM, PeopleSoft, and Intuit). Panel B presents the size distribution of the Best Companies along with corresponding statistics for the 1998 S&P 500 firms to provide some context. In general, the Best Companies are large, with median total assets

TABLE I

Descriptive statistics

Industry description	# Firms		%	
A: Industry distribution				
Manufacturing:				
Chemical and allied products	14		10.7	
Industrial machinery and equipment	13		9.9	
Electronic and other electric equipment	11		8.4	
Other manufacturing	27	65	20.6	49.6
Transportation and public utilities		4		3.1
Wholesale and retail trades		14		10.7
Financial services		21		16.0
Business services		23		17.5
Other services		4		3.1
		131		100.0

	Best companies		S&P 500 companies	
	Assets	Sales	Assets	Sales
B: Comparative summary statistics ($ million)				
Minimum	73.623	35.581	366.167	276.600
First quartile	942.846	993.999	3,256.439	2,604.910
Median	4,284.935	2,803.059	7,231.215	5,285.000
Mean	20,942.867	8,329.549	25,603.582	10,233.353
Third quartile	15,579.350	9,278.469	19,961.700	11,967.000
Maximum	365,875.000	158,514.000	617,679.000	158,514.000

Panel A reports industry distribution of firms named to *Fortune*'s ''100 Best Companies to Work for in America'' list from 1998 to 2005. Panel B reports summary statistics on assets and sales for the *Fortune* firms and the S&P 500

and sales of $4.3 billion and $2.8 billion, respectively. However, the typical Best Company is less than 60% the size of the typical S&P 500 firms, which has $7.2 billion in total assets and $5.3 billion in sales.

The *Fortune* sample has two major strengths. Principally, it consists of firms that are clearly labor-friendly, as evidenced by the plethora of benefits and programs they provide their employees. This gives us significant power to examine the effect of labor-friendly practices. Second, the annual publication of *Fortune*'s list provides an identifiable event date, which allows us to study investors' reaction to announcements of labor-friendly practices as a complement to our operating performance tests.

Yet, the sample suffers from one major limitation: *Fortune* does not provide consistent details on the specific programs in place at each company. In particular, the magazine identifies some but not all programs offered by each company; thus, it is possible for a company to offer programs not associated with it on the list. This makes it impossible to identify the effects of specific labor-friendly programs. Our second sample addresses this limitation.

KLD Research & Analytics sample

KLD Research & Analytics provides proprietary social research and indexes for institutional investors. Its SOCRATES database consists of ratings of the social records of a subset of publicly traded U.S. firms beginning in 1991. In 1998, the database covered 658 firms, including all S&P 500 firms and those non-S&P 500 firms in KLD's DS400 Social

Index.[12] KLD rates each firm on several screens designed to capture its relationship with numerous stakeholder groups, including the community, environment, and employees. These screens are labeled "strengths" and "concerns," and the ratings are indicated by "1" or "0," depending on whether the firm meets the criteria for each screen.

The database includes ratings on 10 labor-related screens, five strengths and five concerns. KLD defines these screens as follows:

Strengths

1. *Union relations*: "1" if the company has taken exceptional steps to treat its unionized workforce fairly.
2. *Employee involvement*: "1" if 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.
3. *Cash profit sharing*: "1" if the firm has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce.
4. *Strong retirement benefits*: "1" if the company has a notably strong retirement benefits program.
5. *Other strength (Safety)*: "1" if the firm has a good employee safety record or demonstrates other noteworthy commitments to its employees' well being.

Concerns

1. *Union relations*: "1" if the company has a history of notably poor union relations.
2. *Safety*: "1" if the company recently has either paid substantial fines or civil penalties for willful violations of employee health and safety standards, or has been otherwise involved in major health and safety controversies.
3. *Workforce reductions*: "1" if the company has reduced its workforce by 15% in the most recent year or by 25% during the past 2 years, or it has announced plans for such reductions.
4. *Pension/benefits concern*: "1" if the company has either a substantially underfunded defined benefit pension plan, or an inadequate retirement benefits program.
5. *Other concern*: "1" if the company has a notable employee problem not addressed by KLD's specific rating categories.

We construct an index of labor-friendliness by summing over the indicator variables for strengths and concerns and then subtracting total concerns from total strengths for each firm. Thus, the index's theoretical maximum and minimum values are 5 and −5, respectively, although the sample maximum is 4 while the minimum is −3. Mean and median values are 0.33 and 0.00, with a standard deviation of 0.92.

The KLD sample provides a robustness check on the results obtained with the *Fortune* sample while also allowing us to examine the differential effects of individual dimensions of labor-friendliness beyond the aggregated results feasible with the *Fortune* list. However, it does not permit an examination of investors' reaction, since there are no verifiable announcement dates for the ratings. Perhaps, more limiting is the fact that KLD's definitions of strengths and concerns are somewhat elastic, which potentially reduces the statistical power of tests based on the sample.

Empirical analysis

Our empirical tests are divided into two broad groups. First, we examine the stock price reaction to announcements of the *Fortune* list. In an efficient market, we expect positive announcement returns if labor-friendly practices are beneficial to shareholders. The second group of tests focuses on operating performance.

Event study analysis

We identify the event date for each year by searching Dow Jones & Reuter's Factiva for the first announcement of firms on that year's *Fortune* list. For firms that appear on the list more than once, we presume that only their first appearance provides new information to the market. Hence, we include them in our analysis only in the year in which they first make the list.[13] We also search Factiva for

potentially confounding news about each company over a period of 11 days centered on the event date. We exclude 13 firms affected by acquisitions, earnings announcements, analyst downgrades/upgrades, and significant new product announcements. We then employ event study methodology to calculate abnormal returns surrounding the announcements by estimating the market model for each firm over a period of 255 days (−301, −46) preceding the event date and using estimated parameters to calculate abnormal returns for various event windows. Results are summarized in Panel A of Table II. As the table shows, average cumulative abnormal return (CAR) is positive and statistically significant in each of the five windows we examine, ranging from 0.93% for the [−5, +1] window to 1.25% for the [−5, +5] window.

This suggests that investors view labor-friendly practices positively, essentially attributing higher benefits to labor-friendly policies than their implementation costs. Alternatively, it is possible that the announcement of the *Fortune* list has no information content whatsoever and that the observed price effect is due to price pressures arising from media attention. In this case, the price effect will disappear over the long-run. We examine this possibility by conducting long-run event studies.

Barber and Lyon (1997) show that the correct approach for evaluating long-run abnormal performance is to calculate BHAR by subtracting the simple buy-and-hold returns on a portfolio of appropriately matched firms from the simple buy-and-hold returns on the sample portfolio. Following this approach, we create a sample of control firms matched to the Best Companies on the basis of book/market equity and market capitalization, both averaged over the 3 years preceding the year the sample firm first makes the *Fortune* list, and the simple buy-and-hold return calculated over the same 3-year period. Mean and median book/market equity for the sample firms are 0.297 and 0.240, compared to 0.290 and 0.237 for the matched sample. The differences are both insignificant, with respective p values of 0.841 and 0.982. Similarly,

TABLE II

Market response to announcement of the Best Companies list

Window (days)	Sample	CAR
A: Short-run event study		
[−1, 0]	118	1.25%★★★
[−1, +1]	118	1.03%★★★
[−5, 0]	118	1.15%★★★
[−5, +1]	118	0.93%★★
[−5, +5]	118	1.25%★★

Horizon (years)	Sample	Mean	Median
B: Long-run buy-and-hold abnormal returns (P values in parentheses)			
[−3, 0]	124	1.12% (0.876)	4.39% (0.448)
[0, +1]	124	11.24%★ (0.082)	8.28%★★ (0.032)
[0, +2]	116	33.13%★★ (0.013)	9.64%★★ (0.053)
[0, +3]	102	24.38%★ (0.103)	9.16% (0.604)

Panel A of this table reports average cumulative abnormal returns (CAR) for announcements of firms on *Fortune's* "100 Best Companies to Work for in America" over 1998–2005. The event date for each year is the date of the first announcement of firms on that year's list in Dow Jones & Reuter's Factiva. Firms with confounding news around the announcement date are excluded from the short-run tests. Panel B reports buy-and-hold abnormal returns for the Best Companies relative to a portfolio of similar firms matched on the basis of book/market equity and market capitalization, both averaged over the 3 years preceding the year the sample firm first made the *Fortune* list, and the simple buy-and-hold returns calculated over the same 3-year period. Levels of significance are indicated by ★★★, ★★, and ★ for 1, 5, and 10%, respectively

average and median market capitalizations are $18.4 billion and $6.1 billion for the Best Companies, compared to $13.5 billion and $4.8 billion for the control group. Neither the means nor the medians are statistically different, with p values of 0.150 and 0.350, respectively. The control group also matches the Best Companies on prior stock market return, with mean and median historical 3-year buy-and-hold returns of 38.84 and 21.01%, respectively, compared to 34.31 and 27.46% for the Best Companies. The differences in the means and medians of historical returns are both insignificant, with p values of 0.734 and 0.417.

Next, we calculate 1-, 2-, and 3-year BHARs by subtracting the buy-and-hold return for each control firm from the buy-and-hold return for the corresponding Best Company over the relevant horizon. In order to minimize the possibility of a survivorship bias, we require neither the Best Company nor control firm to survive for any length of time before including it in our calculations. Rather, each firm is included from the time it (or its matching Best Company) is named to the *Fortune* list until the end of our sample or when it drops out due to a corporate life ending event.

As presented in Panel B of Table II, average and median 1-year BHARs are 11.2 and 8.3%. Both are statistically significant, with p values of 0.082 and 0.032, respectively. Similarly, mean and median 2-year BHARs are 33.1 and 9.6%, both significant at the 5% level. Furthermore, mean and median 3-year BHARs are 24.4 and 9.2%, although only the mean is statistically significant in this case. Overall, these findings are inconsistent with a price pressure explanation for the short-run event study results. Rather, they suggest that investors believe that shareholders derive significant benefits from labor-friendly policies. In the following sections, we examine the precise manner in which shareholders benefit from these programs by analyzing their impact on productivity, profitability, and firm value.

Operating performance

We focus on four measures of operating performance and firm value: employee productivity, firm-level total factor productivity, return on assets (ROA), and Tobin's q. We measure employee productivity using the natural logarithm of net sales per employee and estimate total factor productivity using the residuals of industry-specific Cobb–Douglas production functions estimated for each two-digit standard industrial classification (SIC) industry group, as in Faleye et al. (2006). We define ROA as the ratio of operating income after depreciation to total assets at the beginning of the year. Our measure of firm value, Tobin's q, is calculated as the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets.

A major concern about relating firm performance to labor-friendliness is the issue of the direction of causality, that is, it is possible that companies perform better because they engage in employee-friendly practices or they engage in such practices because they are superior performers with available resources. As a starting point, we address this by selecting control firms matched to our labor-friendly firms on the basis of industry, firm size, and prior performance as measured by average ROA during the 3 years immediately preceding their inclusion on the *Fortune* list.[14] Average and median historical ROA for these control firms are 17.13 and 13.61%, compared to 17.39 and 13.61% for the labor-friendly firms. The differences are not statistically significant, with p values of 0.873 and 0.878, respectively. We include each firm (along with its match) in our analysis from the year it first appears on the list to the end of our window of empirical analysis. Later, we discuss additional steps taken to address this issue within a regression framework. We then repeat our operating performance tests using the full panel of firms in the KLD sample.

As a starting point, we construct match-adjusted values for each operating performance variable over our test window by subtracting the value for the control firm from the value for the corresponding labor-friendly firm. Table III shows results of univariate tests for these match-adjusted variables. As the last row of Table III shows, mean and median match-adjusted employee productivity over the entire 8 years are 0.310 and 0.185, respectively. Both are statistically significant at the 1% level. Table III shows similar results for total factor productivity: mean and median full sample match-adjusted excess factor productivity of 0.221 and 0.130, both significant at the 1% level.

TABLE III

Univariate comparisons

Horizon	Employee productivity		Total productivity		Return on assets		Tobin's *q*	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
First year	0.3403***	0.2277***	0.2588***	0.1310***	0.0215	0.0110*	0.9263***	0.5136***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.115)	(0.074)	(0.000)	(0.000)
	[115]	[115]	[112]	[112]	[119]	[119]	[119]	[119]
Second year	0.3372***	0.1954***	0.2344***	0.0803***	0.0246*	0.0156*	1.0692***	0.3652***
	(0.000)	(0.000)	(0.001)	(0.002)	(0.084)	(0.052)	(0.000)	(0.000)
	[107]	[107]	[105]	[105]	[107]	[107]	[107]	[107]
Third year	0.2812***	0.2336***	0.1813***	0.1261***	0.0373**	0.0072**	0.9850***	0.4052***
	(0.000)	(0.000)	(0.004)	(0.006)	(0.014)	(0.033)	(0.000)	(0.000)
	[94]	[94]	[92]	[92]	[95]	[95]	[95]	[95]
Fourth year	0.2589***	0.1656***	0.1644**	0.0360*	0.0389***	0.0132**	0.7893***	0.3478***
	(0.001)	(0.001)	(0.024)	(0.062)	(0.009)	(0.015)	(0.000)	(0.000)
	[83]	[83]	[81]	[81]	[83]	[83]	[83]	[83]
Fifth year	0.3326***	0.1980***	0.2199***	0.1677***	0.0485***	0.0196***	0.6760***	0.3564***
	(0.000)	(0.000)	(0.004)	(0.006)	(0.004)	(0.004)	(0.000)	(0.000)
	[74]	[74]	[72]	[72]	[75]	[75]	[75]	[75]
Sixth year	0.2904***	0.1709***	0.2043***	0.1200**	0.0311**	0.0240***	0.5640***	0.2048***
	(0.000)	(0.000)	(0.006)	(0.022)	(0.018)	(0.007)	(0.001)	(0.001)
	[67]	[67]	[65]	[65]	[68]	[68]	[68]	[68]
Seventh year	0.3366***	0.1792***	0.2451***	0.0613**	0.0365***	0.0250***	0.7695***	0.2865***
	(0.001)	(0.000)	(0.008)	(0.028)	(0.004)	(0.006)	(0.001)	(0.001)
	[51]	[51]	[51]	[51]	[52]	[52]	[52]	[52]
Eighth year	0.3404***	0.1731***	0.2186*	0.1244	0.0461***	0.0210***	0.8289***	0.2520***
	(0.011)	(0.006)	(0.080)	(0.218)	(0.007)	(0.008)	(0.010)	(0.005)
	[27]	[27]	[27]	[27]	[28]	[28]	[28]	[28]
All years	0.3100***	0.1846***	0.2205***	0.1297***	0.0186*	0.0112**	0.7507***	0.3879***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.0840)	(0.025)	(0.000)	(0.000)
	[119]	[119]	[116]	[116]	[119]	[119]	[119]	[119]

Best Companies are firms listed on *Fortune* magazine's Best 100 Companies to Work for in America between 1998 and 2005. The *Control Group* consists of an industry- and performance-matched group of firms that did not appear on the list throughout the entire period. *Employee Productivity* is the natural logarithm of net sales per employee. *Total Factor Productivity* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *Return on Assets* is the ratio of operating income to total assets at the beginning of the year. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. Match-adjusted variables are computed by subtracting the value for the control firm from the value for the corresponding Best Company. The entry in parentheses is the *p* value for the *t* test or Wilcoxon median test. The entry in square brackets is the number of observations. Levels of significance are indicated by ***, **, and * for 1, 5, and 10%, respectively

These results suggest that labor-friendly practices are associated with improved productivity. However, they do not necessarily imply that such programs are beneficial to shareholders since the firm can spend more on labor-friendliness than it gets in benefits from better productivity. Therefore, we compare profitability and value creation for labor-friendly and control firms to evaluate the bottom-line impact of labor-friendly policies. As Table III shows, mean and median match-adjusted ROA improve from 2.15 and 1.10% in the first post-inclusion year to 3.89 and 1.32% by the fourth year,

and 4.61 and 2.10% by the eighth year. The statistical significance also improves, from p values of 0.115 and 0.074 in the first year to 0.009 and 0.015 in the fourth year, and 0.007 and 0.008 in the eighth year. Likewise, mean and median match-adjusted Tobin's q are positive and statistically significant each year, with p values of 0.01 or less.

These results suggest that labor-friendly practices enhance employee productivity, which helps to increase operating profitability and shareholder value. However, firm value and operating performance are affected by other factors besides labor-friendliness. For example, prior research has shown that several corporate governance variables are correlated with firm performance. These include board size (Yermack, 1996), board election method (Bebchuk and Cohen, 2005; Faleye, 2007), and managerial ownership (Morck et al., 1988). The availability or lack of investment opportunities may also affect firm performance and value. Thus, to isolate the effect of a labor-friendly environment, we control for these variables within a regression framework.

We obtain corporate governance data from proxy statements and annual reports and measure investment opportunity set using the ratio of capital expenditures to total assets as in Yermack (1996) and Faleye (2007). Furthermore, we control for leverage because debt may enhance or hinder a firm's performance, for example, by changing its operating environment through constraints imposed by debt covenants. Using data from Compustat, we measure leverage as the ratio of long-term debt to total assets.

Given our focus on labor-friendly practices, another important consideration is the role of employee compensation arrangements. Specifically, it is possible that labor-friendly companies are simply high-growth firms that compete for employees by providing comprehensive benefit packages and using high-powered incentives that can potentially drive the results. This suggests employee compensation as an important control variable. However, employee compensation data are not publicly available for most of our sample firms. As an alternative, we use employee option grants to measure rank-and-file employee compensation incentives. We hand-collect data on employee stock options from 10-Ks, proxy statements, and annual reports. The data include the number of options outstanding, weighted average term to expiration, and weighted average exercise price. Using these data and following the methodology of Hochberg and Lindsey (2010), we calculate non-executive employee compensation incentives as the change in the value of aggregate non-executive employee option portfolio for a $1 change in the firm's stock price divided by the number of employees. We include this variable as an additional control variable in our regressions.

Our regressions also include year dummies, two-digit primary SIC code dummies to control for time-invariant industry effects, and the natural logarithm of total assets to control for differences in firm size. These regressions are pooled time-series cross-sectional regressions, with standard errors corrected for clustering at the firm level. We present results in Table IV.

Productivity

The first column of Table IV shows regression results for labor productivity. The indicator variable for labor-friendly firms is positive and significant at the 10% level. The coefficient indicates that, on average, employees at labor-friendly firms generate approximately 13% more in sales revenue than control firm employees. Relative to average sales per employee of $353,000 for the full sample, this implies an economically significant $46,900 improvement in annual sales per employee. We obtain similar results for total factor productivity. The second column of Table III shows that, relative to control firms, actual output at labor-friendly firms is approximately 14.1 percentage points higher than what we would expect based on factor inputs. These results are similar to those of Beatty (1995). She finds enhanced productivity following the adoption of employee stock ownership plans (ESOP) at companies where the ESOP does not replace an existing pension plan but lower productivity where it does. This suggests that productivity increases when workers perceive increased commitment to employee welfare, which is consistent with our findings.

Operating profitability

Regression results for ROA are presented in the third column of Table IV. As the table shows, the labor-friendliness variable is positive and statistically significant at the 1% level. Its coefficient suggests that labor-friendliness is associated with an increase of about 5 percentage points in ROA. Mean and

TABLE IV

Labor-friendly practices and operating performance

	SLE	TFP	ROA	Tobin's *q*
Best companies	0.1228⋆	0.1405⋆⋆	0.0496⋆⋆⋆	0.5655⋆⋆⋆
	(0.072)	(0.062)	(0.020)	(0.225)
Firm size	0.1083⋆⋆⋆	0.0256	0.0018	0.0167
	(0.020)	(0.020)	(0.007)	(0.076)
Leverage	0.3179	0.2104	0.0774	−0.0015
	(0.225)	(0.190)	(0.096)	(1.078)
Capex	−0.2023	−1.2135⋆⋆	0.3194⋆	6.9697⋆⋆⋆
	(0.880)	(0.600)	(0.196)	(2.698)
R&D	1.3786⋆⋆⋆	0.7093	−0.2791	7.4545⋆⋆⋆
	(0.517)	(0.510)	(0.233)	(2.379)
Employee option incentives	0.0390⋆⋆⋆	0.0352⋆⋆⋆	0.0025	0.1296⋆⋆⋆
	(0.007)	(0.007)	(0.002)	(0.035)
Classified board	−0.0319	−0.0758	−0.0091	−0.0276
	(0.062)	(0.060)	(0.016)	(0.192)
Board size	−0.0181	−0.0227⋆	0.0024	0.0312
	(0.014)	(0.012)	(0.003)	(0.042)
Managerial ownership	−0.0003	−0.0002	−0.0008⋆⋆	−0.0026
	(0.002)	(0.002)	(0.001)	(0.004)
Intercept	4.2122⋆⋆⋆	0.0896	0.1586⋆	1.5886⋆
	(0.145)	(0.171)	(0.090)	(0.829)
Adjusted R^2	0.752	0.451	0.209	0.370
Sample size	1282	1268	1282	1282

SLE is the natural logarithm of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *Best Companies* equals one for firms listed on *Fortune* magazine's 100 Best Companies to Work for in America between 1998 and 2005, zero otherwise. *Firm Size* is the natural log of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *R&D* is the ratio of research and development expenditures to total assets. *Employee Option Incentives* is the change in the value of aggregate non-executive employee option portfolio for a $1 change in the firm's stock price divided by the number of employees. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by officers and directors. Control firms are selected on the basis of industry and average return on assets during the 3 years preceding the Best Company's inclusion on the *Fortune* list. Each regression includes industry and year dummies. Robust standard errors corrected for clustering at the firm level are provided in parentheses under parameter estimates. Levels of significance are indicated by ⋆⋆⋆, ⋆⋆, and ⋆ for 1, 5, and 10%, respectively

median ROA for the sample are 10.6 and 10.0%, respectively. Thus, after matching on prior performance, firm size, and industry, and controlling for other variables that potentially affect operating profitability, labor-friendly firms achieve an economically significant increase in profitability relative to the control sample.

Shareholder value

The last column of Table IV shows regression results for our measure of shareholder value. Consistent with our productivity and profitability results, the labor-friendliness indicator variable is positive and statistically significant at the 1% level. These results corroborate the event study evidence presented

earlier, further suggesting that devoting significant resources to employee welfare facilitates higher productivity, improved performance, and superior market valuation.

Robustness checks

We recognize that some readers can argue that our results are attributable to a potential selection bias that favors high-performing firms. We matched the labor-friendly firms with a control group of similarly performing firms of about the same size in the same industry precisely to address this concern. Here, we perform additional analysis to reduce the likelihood of such a spurious relation.

First, we exclude data for the first 3 years after a firm was named to the *Fortune* sample and rerun our regressions using this smaller panel. The rationale is that, several years after adopting labor-friendly policies, it seems more plausible that subsequent performance variation is due to such policies. A reverse causation story where firms institute labor-friendly policies because they expect better performance several years later seems less credible. This same approach is employed by Bebchuk and Cohen (2005), Faleye et al. (2006), Faleye (2007), and Cheng (2008) in similar contexts. As Table V shows, results are quite similar to those in Table IV and all but one coefficient on the labor-friendliness variable is bigger than the corresponding coefficient in Table IV, while levels of statistical significance remain comparable.

Next, we follow an additional approach utilized in Faleye et al. (2006). This involves including performance variables around the event of interest as control variables in post-event performance regressions. Thus, we calculate average ROA over the 3 years preceding each Best Company's inclusion on the *Fortune* list and do the same for its corresponding match firm. We then estimate regressions similar to those in Table IV while including our prior performance variable as an additional control. Results are comparable to those in Table IV, with the labor-friendliness variable positive and statistically significant in each regression. We do not tabulate them due to space considerations.

Furthermore, we estimate a two-stage treatment effects model, in which labor-friendliness is an endogenously chosen binary treatment variable. In the first stage, we estimate a treatment equation predicting labor-friendliness as a function of R&D intensity (the ratio of R&D expenditure to total assets), performance (measured by ROA), and firm size. We then use predicted probabilities of labor-friendliness in the second stage performance regressions. Results are presented in Table VI. Once again, they are quite similar to previous results as presented earlier.

Besides potential reverse causality issues, another concern is that our results are affected by omitted variable bias. For example, state employment laws[15] can have a significant impact on workplace friendliness so that not controlling for differences in state laws potentially biases the results. Therefore, we estimate regressions with fixed effects for the state in which each company's head office is located. Results are very similar to those reported in Table IV and are not tabulated for brevity.

Finally, we consider the argument that both labor-friendly policies and firm performance are by-products of a third variable such as executive leadership. Assuming that these variables are time-invariant, the standard solution is to estimate regressions with firm fixed effects. This approach is not feasible in our study because our variable of interest (labor-friendliness) is constant for each firm over our sample period. Nevertheless, we believe that our findings are not likely to be affected by this consideration for two reasons. First, as reported later in "Labor-friendliness and the demand for firm-specific human capital" section, CEO-specific variables (e.g., age, outside board service, equity ownership, and CEO-chair duality) are not significant in regressions predicting labor-friendliness. Second, our results remain unchanged when we augment the treatment effect models of Table VI with CEO variables.

Overall, we believe that our results are inconsistent with a reverse causality or omitted variable story. Rather, they suggest that the labor-friendly firms' superior performance is not a simple artifact of their past performance or some other spurious variable. It appears more plausible that a devotion of significant resources to employee welfare facilitates higher productivity, improved performance, and superior market valuation. We now turn to the KLD sample as an additional robustness check on these results and also to understand any systematic differences in the performance effects of specific labor-friendly practices.

TABLE V

Labor-friendly practices and operating performance, several years out

	SLE	TFP	ROA	Tobin's *q*
Best companies	0.1665⋆	0.1780⋆⋆	0.0585⋆⋆⋆	0.5264⋆⋆⋆
	(0.091)	(0.074)	(0.021)	(0.192)
Firm size	0.1095⋆⋆⋆	0.0329	0.0019	−0.0767
	(0.024)	(0.027)	(0.009)	(0.064)
Leverage	0.3141	0.2784	0.0322	−0.2789
	(0.277)	(0.233)	(0.078)	(0.625)
Capex	−1.0582	−1.8415⋆⋆	0.5562⋆⋆⋆	8.5043⋆⋆⋆
	(0.859)	(0.830)	(0.178)	(2.854)
R&D	1.1682⋆	0.6470	−0.2009	6.7603⋆⋆⋆
	(0.643)	(0.717)	(0.289)	(2.525)
Employee option incentives	0.0355⋆⋆⋆	0.0311⋆⋆⋆	0.0014	0.0861⋆⋆⋆
	(0.009)	(0.008)	(002)	(0.028)
Classified board	−0.0256	−0.0656	−0.0011	0.0160
	(0.077)	(0.075)	(0.018)	(0.175)
Board size	−0.0214	−0.0272	0.0038	0.0805⋆⋆
	(0.019)	(0.017)	(0.004)	(0.040)
Managerial ownership	−0.0001	−0.0003	0.0001	0.0027
	(0.002)	(0.002)	(0.001)	(0.005)
Intercept	4.3390⋆⋆⋆	0.1571	0.0846	1.3869⋆⋆
	(0.210)	(0.226)	(0.085)	(0.646)
Adjusted R^2	0.771	0.465	0.264	0.436
Sample size	704	697	704	704

These regressions exclude the first 3 years after a firm was named to the *Fortune* list. *SLE* is the natural log of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *Best Companies* equals one for firms listed on *Fortune* magazine's 100 Best Companies to Work for in America between 1998 and 2005, zero otherwise. *Firm Size* is the natural log of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *R&D* is the ratio of R&D expenditures to total assets. *Employee Option Incentives* is the change in the value of aggregate non-executive employee option portfolio for a $1 change in the firm's stock price divided by the number of employees. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by officers and directors. Control firms are selected on the basis of industry and average ROA during the 3 years preceding the Best Company's inclusion on the *Fortune* list. Regressions include industry and year dummies. Robust standard errors corrected for firm level clustering are provided in parentheses under parameter estimates. Levels of significance are indicated by ⋆⋆⋆, ⋆⋆, and ⋆ for 1, 5, and 10%, respectively

Regressions using the KLD sample

We estimate regressions relating our performance measures to scores on the index of labor-friendliness and the control variables in Table IV. To reduce the confounding effects of potential identification issues, we relate performance measures to labor-friendliness scores in 1998. Similar to those in Table IV, these regressions are pooled time-series cross-sectional regressions with year and industry dummy variables and robust standard errors clustered at the firm level. Results are presented in Table VII.

The first column of the table contains results for employee productivity. It shows that score on the index of labor-friendliness is positive and statistically significant at the 1% level. Similarly, columns 2–4 of the table indicate that index score is positively related with total factor productivity, profitability, and firm value, although it is insig-

TABLE VI

Labor-friendliness and performance, using treatment effects models

	SLE	TFP	ROA	Tobin's *q*
Best companies	0.4385***	0.6446***	0.2463***	2.7253***
	(0.145)	(0.138)	(0.028)	(0.234)
Firm size	0.0809***	−0.0196	−0.0170**	−0.1739***
	(0.023)	(0.021)	(0.007)	(0.066)
Leverage	0.3288	0.1926	0.1320	0.1679
	(0.200)	(0.154)	(0.085)	(0.698)
Capex	−0.4802	−1.5889***	0.2179	5.0066***
	(0.840)	(0.594)	(0.140)	(1.770)
R&D	0.9935*	0.1720	−0.5485**	4.0568**
	(0.538)	(0.533)	(0.235)	(2.031)
Employee option incentives	0.0393***	0.0336***	0.0017	0.1617***
	(0.007)	(0.006)	(0.002)	(0.035)
Classified board	−0.0357	−0.0716	−0.0206	0.0313
	(0.062)	(0.062)	(0.014)	(0.145)
Board size	−0.0189	−0.0246**	0.0027	0.0178
	(0.014)	(0.012)	(0.003)	(0.035)
Managerial ownership	0.0001	0.0003	−0.0006**	0.0017
	(0.002)	(0.002)	(0.001)	(0.003)
Intercept	5.0625***	0.9936***	0.1724***	1.9453***
	(0.213)	(0.218)	(0.053)	(0.495)
Wald χ^2 *p* value	2493.76	901.99	562.04	470.59
	(0.000)	(0.000)	(0.000)	(0.000)
Sample size	1282	1268	1282	1282

SLE is the natural logarithm of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *Best Companies* is the predicted probability of labor-friendliness as a function of R&D intensity, firm performance, and firm size. *Firm Size* is the natural logarithm of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *R&D* is the ratio of R&D expenditures to total assets. *Employee Option Incentives* is the change in the value of aggregate non-executive employee option portfolio for a $1 change in the firm's stock price divided by the number of employees. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by officers and directors. Each regression includes industry and year dummies. Robust standard errors are provided in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1, 5, and 10%, respectively

nificant in the profitability regression. In all, these results corroborate those from the *Fortune* sample, further suggesting that shareholders benefit when firms foster an employee-friendly working environment.

Both the *Fortune* and KLD results suggest that labor-friendliness in the aggregate is associated with improved performance. A related question is whether and which individual labor-friendly practices have any discernible effect on performance. We explore this question in two steps. First, we rerun the regressions in Table VII using scores on the strength and concern components of our labor-friendliness index. Next, we rerun the regressions using scores on the individual strength and concern ratings.

In Table VIII, we present results of regressions relating our performance measures to aggregated labor

TABLE VII

Regressions using the KLD sample

	SLE	TFP	ROA	Tobin's *q*
1998 Labor-friendliness index	0.0735***	0.0327**	0.0022	0.0922**
	(0.021)	(0.017)	(0.003)	(0.046)
Firm size	0.1218***	0.0368**	−0.0009	0.0966**
	(0.018)	(0.016)	(0.003)	(0.049)
Leverage	−0.0448	−0.3291***	−0.0924***	−2.5392***
	(0.155)	(0.124)	(0.027)	(0.417)
Capex	0.7433	−1.1218***	0.3897***	6.4964***
	(0.583)	(0.384)	(0.085)	(1.408)
Classified board	−0.0057	0.0129	0.0065	0.0460
	(0.044)	(0.036)	(0.006)	(0.100)
Board size	−0.0131	−0.0173**	0.0024*	−0.0235
	(0.009)	(0.008)	(0.001)	(0.023)
Board independence	−0.3000**	−0.1034	−0.0413***	−1.2258***
	(0.138)	(0.116)	(0.016)	(0.356)
Managerial ownership	−0.0068	−0.0030	−0.0004	0.0056
	(0.013)	(0.009)	(0.001)	(0.016)
Intercept	4.7454***	0.3670	0.0774**	1.1380*
	(0.273)	(0.263)	(0.039)	(0.622)
Adjusted R^2	0.671	0.134	0.270	0.313
Sample size	2546	2511	2571	2571

SLE is the natural logarithm of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *1998 Labor-friendliness Index* is based on ratings assigned by KLD Research & Analytics in 1998. *Firm Size* is the natural logarithm of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by the chief executive officer. Each regression includes industry and year dummies. Robust standard errors corrected for clustering at the firm level are provided in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1, 5, and 10%, respectively

strength and labor concern scores. As the table shows, strength scores are positively related with each performance measure, and the coefficients are statistically significant in the labor productivity and Tobin's *q* regressions. In contrast, concern scores are negative but insignificant in each regression in Table VIII. This suggests that beneficial policies in themselves tend to enhance employee productivity and firm value, while potentially adversarial labor practices have no significant impact on productivity and financial performance. Thus, the overall effect of labor-friendliness reported earlier appears to be attributable to firms actively engaging in beneficial practices rather than merely avoiding potentially adversarial policies.

Table IX shows results for individual aspects of labor-friendliness. The first column shows that six of the 10 dimensions are significantly related with employee productivity. Cash profit sharing plans, strong retirement benefits, and strong safety records are each positively related with labor productivity. In contrast, strong union relations have a negative impact on employee and firm-level productivity, with coefficients significant at the 5% level. This is consistent with unions using their bargaining power to extract greater leisure or otherwise hold up the employer, as argued by Baldwin (1983). In addition to strong union relations, the second column of Table IX shows that safety records, pension benefit

TABLE VIII

Labor strengths vs. labor concerns and firm performance

	SLE	TFP	ROA	Tobin's *q*
1998 Labor strengths	0.0947***	0.0324	0.0019	0.1160**
	(0.026)	(0.022)	(0.004)	(0.061)
1998 Labor concerns	−0.0194	−0.0334	−0.0030	−0.0312
	(0.044)	(0.036)	(0.006)	(0.103)
Firm size	0.1184***	0.0368**	−0.0008	0.0928*
	(0.018)	(0.016)	(0.003)	(0.051)
Leverage	−0.0424	−0.3291***	−0.0924***	−2.5366***
	(0.154)	(0.124)	(0.027)	(0.416)
Capex	0.7438	−1.1218***	0.3897***	6.4912***
	(0.579)	(0.384)	(0.085)	(1.408)
Classified board	−0.0052	0.0128	0.0065	0.0465
	(0.044)	(0.036)	(0.006)	(0.100)
Board size	−0.0122	−0.0174**	0.0023*	−0.0225
	(0.009)	(0.008)	(0.001)	(0.023)
Board independence	−0.3115**	−0.1033	−0.0411***	−1.2395***
	(0.139)	(0.117)	(0.016)	(0.356)
Managerial ownership	−0.0064	−0.0030	−0.0004	0.0060
	(0.013)	(0.009)	(0.001)	(0.016)
Intercept	4.7717***	0.3670	0.0770**	1.1672*
	(0.282)	(0.264)	(0.040)	(0.631)
Adjusted R^2	0.672	0.133	0.269	0.313
Sample size	2546	2511	2571	2571

SLE is the natural logarithm of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *1998 Labor Strengths* and *1998 Labor Concerns* are based on ratings assigned by KLD Research & Analytics in 1998. *Firm Size* is the natural logarithm of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by the chief executive officer. Each regression includes industry and year dummies. Robust standard errors corrected for clustering at the firm level are provided in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1, 5, and 10%, respectively

concerns, and other labor-related concerns are significantly related with total factor productivity. Essentially, the results suggest that a safe working environment promotes productivity while concerns about promised pension benefits seem to diminish productivity.

Other results in Table IX indicate that profitability is significantly positively related with the strength of retirement benefits and significantly negatively related with prior workforce reductions. Similarly, firm value is positively related with the extent of employee involvement, the strength of retirement benefits, and poor union relations but negatively related with safety controversies and workforce reductions.

We draw a few inferences from these results. First, they suggest that employees respond to both the financial and non-financial aspects of their working environment. Strong retirement benefits can facilitate employee retention and investment in firm-specific human capital, resulting in improved productivity, profitability, and firm value as reported in Table IX. In contrast, the significance of safety records and employee involvement in the

TABLE IX
Individual labor practices and firm performance

	SLE	TFP	ROA	Tobin's *q*
Strong union relations	−0.1978**	−0.1854**	0.0082	0.0994
	(0.090)	(0.093)	(0.016)	(0.150)
Profit sharing plan	0.1051**	0.0610	−0.0114	−0.0177
	(0.044)	(0.041)	(0.008)	(0.120)
Employee involvement	0.0252	0.0135	0.0086	0.2822*
	(0.049)	(0.044)	(0.008)	(0.149)
Retirement benefits	0.1832**	0.0211	0.0243**	0.3976**
	(0.093)	(0.071)	(0.011)	(0.171)
Strong safety records	0.1936**	0.0864*	0.0004	−0.1184
	(0.084)	(0.053)	(0.010)	(0.161)
Poor union relations	−0.1286	−0.0082	0.0118	0.2093*
	(0.094)	(0.076)	(0.010)	(0.124)
Safety controversies	0.1127	0.0246	−0.0222	−0.5621***
	(0.104)	(0.087)	(0.015)	(0.195)
Workforce reductions	0.2507**	0.0651	−0.0333**	−0.5501***
	(0.112)	(0.095)	(0.014)	(0.213)
Pension benefits concern	−0.1301	−0.1351*	0.0158	0.4691**
	(0.095)	(0.079)	(0.013)	(0.211)
Other concerns	−0.1333***	−0.0885*	0.0062	−0.0413
	(0.052)	(0.055)	(0.014)	(0.206)
Firm size	0.1180***	0.0360**	−0.0012	0.0946**
	(0.018)	(0.016)	(0.003)	(0.049)
Leverage	−0.0627	−0.3360***	−0.0957***	−2.5211***
	(0.149)	(0.123)	(0.027)	(0.396)
Capex	0.7664	−1.1057***	0.3814***	6.2898***
	(0.570)	(0.386)	(0.085)	(1.469)
Classified board	0.0010	0.0188	0.0043	0.0259
	(0.044)	(0.037)	(0.006)	(0.098)
Board size	−0.0102	−0.0166**	0.0023*	−0.0213
	(0.008)	(0.008)	(0.001)	(0.023)
Board independence	−0.3301***	−0.1331	−0.0373**	−1.1507***
	(0.135)	(0.113)	(0.016)	(0.353)
Managerial ownership	−0.0067	−0.0029	−0.0004	0.0063
	(0.013)	(0.009)	(0.001)	(0.016)
Intercept	4.7790***	0.3792	0.0795**	1.0374*
	(0.268)	(0.264)	(0.039)	(0.605)

productivity and firm value regressions illustrates the influence of non-financial factors in aligning labor with shareholder interests. Furthermore, the overall pattern of statistical significance of the individual index components suggests that it is not sufficient to focus on a single aspect of the employee experience; rather, a well-balanced approach appears necessary to secure the benefits of labor-friendliness.

Labor-friendliness and the demand for firm-specific human capital

Jensen's (2001) argument suggests that, in a rational choice regime, firms will devote significant resources to employee welfare if doing so enhances their ability to maximize value. We argued earlier that labor-friendly programs can help attract and retain well-qualified employees and encourage them to invest in firm-specific human capital. This suggests

TABLE IX
continued

	SLE	TFP	ROA	Tobin's *q*
Adjusted R^2	0.682	0.144	0.284	0.334
Sample size	2546	2511	2571	2571

SLE is the natural logarithm of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC industry group. *ROA* is the ratio of operating income to total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *Strong Union Relations* equals one if the company has taken exceptional steps to treat its unionized workforce fairly, zero otherwise. *Profit Sharing* equals one if the company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce. *Employee Involvement* equals one if 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* equals one if the company has a notably strong retirement benefits program. *Strong Safety Records* equals one if the company has a good employee safety record or demonstrates other noteworthy commitments to its employees' well being. *Poor Union Relations* equals one if the company has a history of notably poor union relations, zero otherwise. *Safety Controversies* equals one if the company recently has either paid substantial fines or civil penalties for willful violations of employee health and safety standards, or has been otherwise involved in major health and safety controversies, zero otherwise. *Workforce Reductions* equals one if the company has reduced its workforce by 15% in the most recent year or by 25% during the past 2 years, or it has announced plans for such reductions, zero otherwise. *Pension Benefits Concern* equals one if the company has either a substantially underfunded defined benefit pension plan, or an inadequate retirement benefits program, zero otherwise. *Other Concerns* equals one if the company has a notable employee problem not addressed by the other specific rating categories. These ratings are assigned by KLD Research & Analytics and are for 1998. *Firm Size* is the natural logarithm of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Board Independence* is the fraction of independent directors. *Managerial Ownership* is the fraction of shares owned by the chief executive officer. Each regression includes industry and year dummies. Robust standard errors corrected for clustering at the firm level are provided in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1, 5, and 10%, respectively

a positive relation between labor-friendliness and the extent to which a firm depends on highly skilled employees who must invest in idiosyncratic human capital. It also suggests that such firms derive the most benefit from engaging in labor-friendly practices. We explore these issues in this section.

We measure the demand for highly skilled employees using the ratio of R&D expenditures to total assets. The intuition is that R&D-intensive firms depend on highly skilled workers because of the technical expertise required to reap the risky firm-specific payoffs associated with R&D expenditures. We calculate average R&D/assets for each Best Company over the 3 years preceding its year of membership on the list and do the same for its matching firm over the same period.

Consistent with our hypothesis, we find that firms on the *Fortune* list invest significantly more in R&D than similar firms in the same industry. Average and median historical R&D/assets for the Best Companies are 5.74 and 3.07%, respectively, compared to 3.65 and 0.09% for the control sample. Both differences are statistically significant at the 1% level. We then estimate regressions predicting labor-friendliness as a function of R&D intensity and other firm-specific characteristics including profitability, firm size, availability of investment opportunities, and leverage. We control for industry differences with two-digit SIC code dummies. Results indicate that the likelihood of labor-friendliness increases with R&D intensity. None of the other variables (with the exception of firm size, which is significant at the 10% level) is statistically significant. Results

remain the same when we control for various aspects of corporate governance and CEO characteristics, with none of these variables being significant.

Next, we test the effect of the demand for highly skilled employees on the relation between performance and labor-friendliness by estimating regressions that include an additional term interacting the labor-friendliness dummy variable with R&D/assets. If R&D-intensive firms benefit more from creating a worker-friendly environment, then the interaction term should be positive and statistically significant.

As Table X shows, the interaction term is positive in both productivity regressions, although it is not statistically significant at conventional levels. In the

TABLE X

Labor-friendliness, human capital intensity, and performance

	SLE	TFP	ROA	Tobin's *q*
Best companies	0.1230	0.1409⋆	0.0199	0.3057
	(0.085)	(0.076)	(0.022)	(0.236)
R&D intensity	1.3079⋆	0.6644	−0.7599⋆⋆⋆	2.8595
	(0.560)	(0.654)	(0.237)	(2.274)
Best companies × R&D intensity	0.1922	0.1945	0.7319⋆⋆⋆	6.7980⋆⋆
	(0.736)	(0.782)	(0.278)	(2.916)
Firm size	0.1099⋆⋆⋆	0.0269	0.0003	0.0080
	(0.020)	(0.020)	(0.007)	(0.076)
Leverage	0.3457	0.2275	0.0750	0.1228
	(0.226)	(0.190)	(0.099)	(0.808)
Capex	−0.3189	−1.3289⋆⋆	0.3385⋆	6.9002⋆⋆⋆
	(0.862)	(0.599)	(0.198)	(2.544)
Employee option incentives	0.0397⋆⋆⋆	0.0341⋆⋆⋆	0.0026	0.1476⋆⋆⋆
	(0.007)	(0.006)	(0.002)	(0.036)
Classified board	−0.0397	−0.0836	−0.0157	−0.1028
	(0.063)	(0.061)	(0.015)	(0.179)
Board size	−0.0173	−0.0222⋆	0.0030	0.0409
	(0.014)	(0.012)	(0.003)	(0.040)
Managerial ownership	−0.0001	−0.0001	−0.0009⋆⋆	−0.0024
	(0.002)	(0.002)	(0.001)	(0.004)
Intercept	4.1878⋆⋆⋆	0.0706	0.1673⋆	1.5739⋆
	(0.146)	(0.172)	(0.085)	(0.805)
Adjusted R^2	0.751	0.444	0.232	0.398
Sample size	1282	1268	1282	1282

SLE is the natural log of net sales per employee. *TFP* is the residual of industry-specific Cobb–Douglas production functions estimated for each two-digit SIC group. *ROA* is the ratio of operating income to prior year's total assets. *Tobin's q* is the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. *Best Companies* equals one for firms listed on *Fortune* magazine's 100 Best Companies to Work for in America between 1998 and 2005, zero otherwise. *R&D Intensity* is the ratio of R&D expenditures to total assets. *Firm Size* is the natural log of total assets. *Leverage* is the ratio of long-term debt to total assets. *Capex* is the ratio of capital expenditures to total assets. *Employee Option Incentives* is the change in the value of aggregate non-executive employee option portfolio for a $1 change in the firm's stock price divided by the number of employees. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *Board Size* is the number of directors. *Managerial Ownership* is the fraction of shares owned by officers and directors. Control firms are selected on the basis of industry and average return on assets during the 3 years preceding the Best Company's inclusion on the *Fortune* list. Regressions include industry and year dummies. Robust standard errors corrected for firm level clustering are provided in parentheses under parameter estimates. Levels of significance are indicated by ⋆⋆⋆, ⋆⋆, and ⋆ for 1, 5, and 10%, respectively

profitability regression in contrast, the interaction term is positive and significant at the 1% level, while the main effect is not. In terms of economic significance, operating profitability increases by (a statistically insignificant) 2.0 percentage points for the labor-friendly firm with no R&D investments but by 5.1 percentage points for the labor-friendly firm with average investments in R&D. We obtain similar results for firm value: the interaction term is positive and significant at the 5% level while the main effect is statistically insignificant.

Overall, our results suggest that R&D-intensive firms, whose success depends more on the ability to attract and retain high quality human capital, are more likely to engage in labor-friendly practices and tend to benefit more from such practices. This is in the same spirit as Fisman et al. (2005) who find that community-oriented socially responsible behavior mainly benefits firms in competitive product markets where success depends on a favorable public image.

Possible managerial self-interest motives

The results in "Operating performance" section above suggest that labor-friendly policies are adopted for economic reasons. In this section, we explicitly consider the possibility that management can also pursue labor-friendly practices to protect its self-interest by analyzing the impact of labor-friendly practices on excess managerial compensation.

We define three measures of executive pay: salary, cash compensation, and total compensation. Cash compensation is the sum of salary and bonus, while total compensation includes salary, bonus, the value of stock options and restricted stock granted during the year, long-term incentive payouts, and other miscellaneous annual compensation amounts. These measures are based on data from Standard and Poor's Execucomp database.

Similar to Berger et al. (1997), we calculate excess CEO compensation using residuals from the following regression that predicts normal compensation as a function of firm size, market performance, operating performance, and CEO tenure. Each regression includes industry and year dummies and is estimated over all firms in the Execucomp panel. The subscripts i and t refer to individual firms and years, respectively.

$$\begin{aligned}\text{CEO Compensation}_{i,t} &= \alpha + \beta_1\ \text{Sales}_{i,t} \\ &+ \beta_2\ \text{Market Return}_{i,t-1} + \beta_3\ \text{Return on Assets}_{i,t-1} \\ &+ \beta_4\ \text{Years as CEO}_{i,t} + \gamma'\ \text{Industry Dummies}_i \\ &+ \phi'\ \text{Year Dummies}_t + \varepsilon_{i,t} \qquad (1)\end{aligned}$$

We recognize that other factors may affect excess CEO compensation. In particular, it is plausible that the CEO's ability to secure excessive compensation depends on the strength of the firm's monitoring mechanisms. Core et al. (1999) show that the level of CEO compensation is significantly related to board of director characteristics and ownership structure. Therefore, we estimate regressions controlling for variables related to the firm's corporate governance structure, including board size, board composition, CEO duality, the number of external boards on which the CEO serves, managerial equity ownership, and CEO age. Each regression also controls for firm size, leverage, and performance (as measured by Tobin's q) as well as industry and year dummies. Standard errors are clustered at the firm level.

As the third column of Table XI shows, the labor-friendliness variable is negative, albeit statistically insignificant, in the regression for excess total compensation. The first and second columns show similar results for salary and cash compensation. Thus, the evidence is inconsistent with labor-friendly CEOs enjoying excessive pay. Rather, it appears that these CEOs extract similar rents as do their peers at comparable firms.

These results suggest that management derives no significant pecuniary benefits from engaging in labor-friendly practices, which complements our earlier findings and lends additional support to the hypothesis that these practices are adopted to enhance shareholder wealth, rather than as a means of satisfying managerial self-interest motives.

Conclusions

In a recent interview with the *Financial Times*, Jack Welch, who was CEO of the General Electric Company for 20 years, stated that, "On the face of it, shareholder value is the dumbest idea in the world. Shareholder value is a result, not a strat-

TABLE XI

Labor-friendliness and excess executive compensation

	Salary	Cash compensation	Total compensation
Best companies	35.917	−206.072	−1466.847
	(46.633)	(203.467)	(1253.545)
Board size	9.856	−46.444	−569.562⋆
	(15.474)	(42.822)	(314.484)
Board independence	128.532	1035.566⋆⋆	−1256.515
	(127.894)	(476.864)	(2891.492)
Classified board	16.501	−78.517	495.716
	(51.735)	(168.723)	(1029.695)
CEO duality	53.653	138.072	−1212.081
	(40.931)	(150.624)	(1263.943)
CEO external directorships	52.446⋆⋆⋆	166.986⋆⋆	761.862⋆
	(15.199)	(68.033)	(408.147)
Managerial ownership	−4.011⋆	−14.684⋆	−85.200⋆
	(2.171)	(9.118)	(46.004)
CEO age	3.311	6.878	−12.203
	(3.947)	(10.176)	(66.625)
Firm size	18.869	274.533⋆⋆⋆	2384.344⋆⋆⋆
	(20.406)	(98.746)	(775.887)
Leverage	22.618	486.845⋆	−2693.982
	(113.266)	(299.940)	(2599.690)
Firm performance	−5.794	−11.363	1350.428⋆
	(8.066)	(37.310)	(730.241)
Intercept	−599.515⋆⋆	−2839.765⋆⋆⋆	−14148.575⋆⋆
	(257.024)	(815.855)	(6599.252)
Adjusted R^2	0.271	0.168	0.134
Sample size	899	899	899

The dependent variables are residuals from first-stage regressions estimated over all Execucomp firms that predict executive pay as a function of economic determinants. *Cash Compensation* is the sum of salary and bonus. *Total Compensation* includes salary, bonus, the value of stock options and restricted stock granted during the year, long-term incentive payouts, and other miscellaneous annual compensation amounts. *Best Companies* equals one for firms listed on *Fortune* magazine's 100 Best Companies to Work for in America between 1998 and 2005, zero otherwise. *Board Size* is the number of directors. *Board Independence* is the fraction of independent directors. *Classified Board* equals one when directors are elected to staggered terms, zero otherwise. *CEO Duality* is a dummy variable, which equals one when the CEO also serves as board chairman, zero otherwise. *CEO External Directorships* is the number of outside board on which the CEO serves. *Managerial Ownership* is the fraction of shares owned by the chief executive officer. *Firm Size* is the natural logarithm of total assets. *Leverage* is the ratio of long-term debt to total assets. *Firm Performance* is Tobin's *q*, calculated as the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. Robust standard errors corrected for clustering at the firm level are provided in parentheses under parameter estimates. Levels of significance are indicated by ⋆⋆⋆, ⋆⋆, and ⋆ for 1, 5, and 10%, respectively

egy…your main constituencies are your employees, your customers, and your products."[16] Some have taken this to be a controversial view from the man often acknowledged as the father of the shareholder value movement. In a sense, this quote and the ensuing controversy sum up much of the debate over shareholder versus stakeholder theory in the academic literature. We aim to shed some light on this debate by investigating the relation between treatment of employees and shareholder value.

We focus on firms selected by *Fortune* magazine as the 100 Best Companies to Work for in America be-

tween 1998 and 2005 to understand how labor-friendly corporate practices affect shareholder outcomes. We find significantly positive announcement returns, suggesting that the market values corporate concern for workers. We also find that companies selected for the list subsequently outperform comparable firms in terms of long-run stock returns, productivity, profitability, and value creation. Thus, it appears that the positive announcement returns capitalize subsequently higher productivity as well as superior operating profitability. We obtain similar results using a different sample based on the SOCRATES database supplied by KLD Research & Analytics.

Our results also provide economic rationale for engaging in labor-friendly practices. We find that R&D-intensive firms are more likely to be labor-friendly and that the benefits accrue mostly to these firms. We do not find that top management derives significant personal benefits in the form of excessive pay from labor-friendly practices. We interpret our results as consistent with a genuine concern for employees translating into higher productivity and profitability, which in turn facilitate value creation. It appears that the benefits of labor-friendly practices significantly outweigh the costs and that what is good for employees is good for shareholders.

It is noteworthy that our results are not inconsistent with the recent views expressed by Jack Welch. During Welch's tenure at GE, he aggressively focused on introducing six-sigma (the relentless pursuit of quality) and on training and developing the best employees. This focus on non-shareholder stakeholders was Welch's strategy for building sustainable competitive advantage, leading to the result of increased shareholder value.

The question of *whether what is good for employees is good for shareholders* raises many complex issues. While we address this question and provide evidence to support the conclusion that the benefits of labor-friendly practices significantly outweigh the costs and that what is good for employees is good for shareholders, many unanswered issues in the theoretical and empirical debates surrounding stakeholder, agency, and organizational theory remain. Donaldson and Preston (1995) argue that stakeholder theory is used in a number of ways that are distinct and use different methodologies, types of evidence, and criteria or appraisal. They identify descriptive/empirical, instrumental, and normative aspects of stakeholder theory. Here, we partially address descriptive/empirical issues (the labor-friendliness of different firms) and instrumental issues (connections between stakeholder management and firm performance), without contributing to the normative (firms should consider stakeholder interests regardless of impact on stockholders) debate. We also provide some evidence relative to the principal-agent area of agency theory pertaining to employer–employee issues, as opposed to the positivist area which focuses more on shareholder/manager issues (Eisenhardt, 1989). While we provide a discussion of the shareholder/labor link and empirical support for the consistency of the interests, there is a need for more theoretical and empirical work in these areas. While we suggest some ways that employee-friendly policies link to firm performance (e.g., improved employee commitment, reduced rates of absenteeism, voluntary turnover, and attrition, and improved productivity), there is room to more carefully examine these linkages. Future research may examine the causal relations between employee-friendly policies and firm performance in more detail using methods that examine the inner workings of individual firms.

Our results provide empirical support for the conclusions, but certain caveats apply. One is the issue of measurement of employee friendliness. McGuire et al. (1988) utilize a different type of *Fortune* data and note that the validity and appropriateness of the measure requires further examination. This is also true for our employee friendliness measures from *Fortune*. We mitigate this concern by using a different labor-friendliness dataset from KLD and find that our results are robust to the choice of data set. Another empirical issue is that of causality or endogeneity. McGuire et al. (1988), for example, find that financial performance is more likely to influence future CSR than social responsibility is to influence future financial performance. Similar concerns apply to the labor-friendliness – performance relation. We attempt to control for endogeneity concerns through a variety of techniques. We select control firms matched to our labor-friendly firms, including a match on prior performance, using each of our measures of company performance. We include each firm and its match from the first year it appears on the *Fortune* list to the end of our analysis window. We also follow the approach of Bebchuk and Cohen (2005) and others and exclude data for

the first 3 years after a firm was named to the *Fortune* list, and find robust results. We also follow the approach used in Faleye et al. (2006) and include performance variables around the event (naming to the *Fortune* list) as control variables. Again the results are robust. Finally, we estimate a two-stage treatment effects model and obtain robust results. While reverse causality is always a concern, we have taken several steps to address the issue and believe that our results are not driven by a reverse causality story.

Stakeholder and agency issues relating to organizational theory and a firm's contracting with non-shareholder stakeholders continue to be a contentious area in the theoretical and empirical literature. While more research in this area is warranted, we attempt here to investigate in a rigorous manner the relation between labor-friendliness and company performance. Our findings are consistent with the notion that what is good for employees is good for shareholders.

Notes

[1] "The 100 Best Companies to Work for in America," by Robert Levering, et al., *Fortune*, Jan. 12, 1998, p. 84.

[2] "Businesses' family policies pay dividends," by Amy Geisel, *The Knoxville News-Sentinel*, Sept. 18, 1996, p. B1.

[3] Donaldson and Preston (1995) provide a comprehensive discussion of stakeholder theory.

[4] Eisenhardt (1989) provides a comprehensive discussion of agency theory.

[5] See, for example, Friedman (1962, 1970), Fama and Jensen (1983), and Jensen (2001, 2002).

[6] "Put Investors in their Place: Why Pander to People who Now Hold Shares, on Average, Less than 10 Months?" by Clayton M. Christensen and Scott D. Anthony, *Business Week*, May 28, 2007.

[7] While employee equity ownership is often suggested for this purpose, the empirical evidence is mixed at best. For example, see Beatty (1995), Lougee (1999), and Faleye et al. (2006).

[8] Eisenhardt (1989) notes that the use of multiple theories is often appropriate given the complexity of organizations. This is also consistent with Hirsch et al. (1987), Sharplin and Phelps (1989), Hill and Jones (1992), and Donaldson and Preston (1995).

[9] Commenting on the recently implemented compensation disclosure rules, Mark Reilly, a partner at Chicago-based Compensation Consulting Consortium, argues that many firms are cutting back on executive perks to reduce the likelihood of employee protests. This suggests that management cares about workers' opinion on executive compensation. The issue is, he says, "How will our employees and shareowners perceive these perquisites? It just sort of provides ammunition to employee groups and unions to attack your pay policy." *The Wall Street Journal*, January 13, 2007, p. A6.

[10] According to *Fortune*, "we rely on two things: our evaluation of the policies and culture of each company and the opinions of the company's own employees. We give the latter more weight: Two-thirds of the total score comes from employee responses to a 57-question survey …. The survey goes to a minimum of 400 randomly selected employees from each company and asks about things such as attitudes toward management, job satisfaction, and camaraderie. The remaining third of the score comes from our evaluation of each company's demographic makeup, pay and benefits programs, and the like. We score companies in four areas: credibility (communication to employees), respect (opportunities and benefits), fairness (compensation, diversity), and pride/camaraderie (philanthropy, celebrations)." January 23, 2006, p. 89.

[11] These examples are taken from various annual *Fortune* issues announcing the 100 Best Companies.

[12] According to its website, KLD "uses a two-step screening process for selecting companies for the DS400. KLD first excludes from consideration companies involved in alcohol, tobacco, firearms, gambling, nuclear power and military-weapons beyond specified revenue thresholds. These companies are not eligible regardless of other social and environmental attributes of these companies. From the remaining universe of companies in the Russell 3000, KLD selects companies for the DS400 that have positive ESG (environmental, social and governance) records based on the following issues: environmental stewardship, community relations, diversity, employee relations, human rights, product quality and safety, and corporate governance."

[13] Including subsequent appearances for repeat list members does not change our findings. Changes in rankings also do not impact our results. Furthermore, when we examine the market impact of firms being dropped from the *Fortune* list, we find no significant effect. This is not surprising, as firms do not necessarily become labor-unfriendly when dropped from the list. A positive reaction for additions to the list but no significant impact for deletions is consistent with Chen et al. (2004) who find positive price responses for additions to the S&P 500 index but no significant price impacts for deletions.

[14] As a robustness check, we create separate matched samples based on each operating performance measure. For example, for our Tobin's *q* tests, we match the *Fortune* firms based on industry, firm size, and prior Tobin's *q*. Results for these samples are similar to those reported here and are not tabulated due to space considerations.

[15] Autor et al. (1997) examine the impact of state employment law on wages and employment.

[16] "Welch Rues Short-Term Profit Obsession," by Francesco Guerrera, *Financial Times*, March 12, 2009.

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